

UNIVERSITÉ DU QUÉBEC À MONTRÉAL

AN ANALYTICAL INQUIRY INTO THE EVOLUTION OF FOREST
GOVERNANCE INSTITUTIONS IN QUÉBEC

THESIS
PRESENTED
AS A PARTIAL REQUIREMENT OF
THE DOCTORATE IN ENVIRONMENTAL SCIENCES

BY
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JULY 2013

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UNIVERSITÉ DU QUÉBEC À MONTRÉAL

REGARD ANALYTIQUE SUR L'ÉVOLUTION DES INSTITUTIONS DE
GOUVERNANCE FORESTIÈRE AU QUÉBEC

THÈSE
PRÉSENTÉ
COMME EXIGENCE PARTIELLE DU
DOCTORAT EN SCIENCES DE L'ENVIRONNEMENT

PAR
ALAIN FRÉCHETTE

JUILLET 2013

REMERCIEMENTS

J'aimerais en premier lieu remercier mes directeurs de thèse, Laurent Lepage, Pierre Drapeau et Nathalie Lewis. Sans votre appui, nos échanges, le questionnement que vous avez suscité, et notre partage d'idées, cette thèse n'aurait pas été possible. Je vous remercie très sincèrement pour votre appui tout au long de ces nombreuses années, vos encouragements et votre confiance indéfectible. Je voudrais également remercier les membres du jury Amy Poteete, Mark Sproule-Jones, le président, Daniel Kneeshaw, de même que la représentante de la faculté des sciences, Dolores Planas.

J'aimerais également remercier Nicolas Milot et Patrick Morin, pour nos échanges d'idées, vos encouragements et notre passion commune pour la gestion durable de notre milieu. Je tiens à remercier Daniel Gagnon pour tous ses encouragements, mes collègues Charles Lusthaus, Marie-Hélène Adrien, Katrina Rojas et Gary Anderson pour leurs appuis, et Daniel Malenfant pour m'avoir inspiré à poursuivre une étude historique. Les amis et collègues qui m'ont appuyé tout au long de cette aventure sont trop nombreux pour être mentionnés, mais merci du fond du cœur à tous et à toutes. L'appui du Centre d'étude de la forêt, de même que trois bourses FARE obtenues au fil des ans ont été particulièrement appréciées.

Enfin, pour leur patience et leur amour pendant ce long et difficile parcours, j'aimerais remercier spécialement mes parents, Yvan et Corine, et ma famille, Martine, Chloé et Alexandre, à qui cette thèse est dédiée.

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LIST OF ABBREVIATIONS AND ACRONYMS

| | |
|-------|---|
| CFA | Canadian Forestry Association |
| CIHM | Canadian Institute for Historical Microreproductions |
| DAL | Débat de l'Assemblée Législative |
| DALQ | Débat de l'Assemblée Législative du Québec |
| JALC | Journal of the Assembly of Lower Canada |
| JCPC | Judicial Committee of the Privy Council |
| JHALC | Journal of the House of Assembly of Lower Canada |
| JLAC | Journal of the Legislative Assembly of the Province of Canada |
| JLAQ | Journal of the Legislative Assembly of Québec |
| JLCQ | Journal of the Legislative Council of Québec |
| MER | Ministère de l'Énergie et des Ressources |
| MTFQ | Ministère des Terres et Forêts du Québec |
| RCCL | Report of the Commissioner of Crown Lands |
| RCFS | Report of the Chief of Forest Service |
| RCSF | Rapport du Chef du Service Forestier |
| RMTF | Rapport du Ministère des Terres et Forêts |

RÉSUMÉ

Le secteur forestier québécois traverse actuellement une des pires crises de son histoire. Bien que les causes structurelles et conjoncturelles attribuables à cette situation soient nombreuses et fassent l'objet de vives spéculations entre différents groupes d'initiés, les causes sous-jacentes de cette crise (soit les facteurs sociaux, politiques et économiques) suscitent étonnamment peu d'intérêts. De plus, alors que l'origine de la présente situation est la plupart du temps attribuée à la refonte du régime forestier de 1986, l'examen exhaustif de l'évolution des institutions de gouvernance forestière depuis le début du 19^e siècle indique que les problèmes de ce secteur ne sont pas nouveaux.

Les défis qui touchent l'industrie forestière aujourd'hui découlent d'un ensemble de problématiques récurrentes et historiques, mais dont les effets ont toujours pu être tempérés par des manipulations structurelles peu coûteuses, par des développements technologiques ou simplement par l'abondance même des stocks de ressources dont bénéficiait naguère le Québec. Or, si la crise actuelle résulte de défaillances qui sont à la fois chroniques et systémiques, quelle est la structure du dilemme qui amenuise systématiquement la capacité des acteurs sociaux, politiques et économiques à entreprendre les actions collectives qui s'imposent? La caractérisation historique du régime forestier, depuis ses origines jusqu'aujourd'hui, suggère que la rigidité constitutionnelle de la gouvernance forestière de même que la structure centralisée de l'arène des choix collectifs seraient en grande partie responsables des crises qui se sont succédé et des difficultés qu'éprouvent les acteurs concernés à résoudre conjointement les problèmes engendrés par l'exploitation forestière.

Par le biais d'une analyse historique, basée sur le cadre d'analyse et de développement institutionnel (IAD – Institutional Analysis and Development Framework), nous traçons le développement conjoint des institutions constitutionnelles et de gouvernance forestières depuis le début du régime anglais en 1763 jusqu'à 1986. L'étude s'appuie sur une approche qualitative comparée des documents d'archives publiques issus de cinq périodes de l'histoire du Québec, choisie en fonction des changements institutionnels survenus durant ces périodes et les problématiques propres à chacune de ces périodes : (1) le système colonial 1763-1839 (2) le Canada Uni 1840-1866, (3) le Québec souverain préindustriel 1867-1906, (4) Le Québec à l'ère des papetières 1907-1950, et (5) le Québec suivant la Révolution tranquille 1960-1986.

Le cadre théorique est issu des traditions du Choix public et l'Institutionnalisme rationnel. Le suivi des processus de causalité (process tracing) et la juxtaposition des données empiriques au cadre théorique ont été utilisés pour assurer une plus grande rigueur méthodologique et augmenter notre confiance envers les résultats obtenus.

L'évaluation de données empiriques soutient l'existence d'un lien probant entre l'évolution des institutions de gouvernance forestière du Québec et les intérêts des divers gouvernements qui se sont succédé. L'analyse historique de l'exploitation des forêts québécoises montre comment le droit constitutionnel exclusif détenu par le conseil exécutif du gouvernement du Québec et l'absence de contraintes efficaces sur le processus décisionnel de ce dernier ont été systématiquement employés à des fins politiques et économiques, et ce, au détriment de solutions connues pour une meilleure gestion des ressources ligneuses pour l'intérêt commun. Étant la seule entité responsable de la gestion des ressources naturelles sur le territoire public, cette thèse établit que les gouvernements qui se sont succédé au fil du temps ont exercé une influence décisive sur l'évolution des institutions de gouvernances forestières, en affectant la sélection et la réplique des idées, des valeurs et des intérêts qui ont défini le rapport des Québécois à la forêt depuis plus près de deux siècles.

Mots clefs : Gouvernance, institutions, constitution, évolution, actions collectives

ABSTRACT

Quebec's forest sector has recently witnessed one of its worst crises ever. While the structural and conjectural causes attributable to this situation are widely debated, the underlying causes of the crisis (i.e., the social, political and economic factors) have so far solicited very little interest amongst social scientists. Similarly, discussions on the origins of the crisis have largely focused on the legislative reforms of the 1980s and the faulty assumptions that were then used to determine the maximum sustainable yield. Yet, as any cursory overview of the history of forest management in Québec would show, concern over the administration of this public resource asset dates far back to the early 1800's.

Viewed through a historical lens, the reasons for Québec's (re)current forestry crisis become decidedly murkier. If sub-optimal patterns of forest resource can be traced as far back as the onset of commercial exploitation in the early 1800s, then the recent predicament of Québec's forest sector cannot entirely be attributed to flawed models, inadequate oversight, or poor management procedures. Other, more fundamental factors need to be considered. Given that the right to make, alter or abrogate laws, rules and regulations pertaining to the use, management or alienation of public resources is constitutionally vested in provincial legislatures within the Canadian context, then the phenomenon that needs to be explained is how forest resource institutions evolved in the hands of successive governments and why.

Using a qualitative case study approach, grounded in archival research, the thesis relied on process tracing as the principal method of analysis, this thesis focused on the development of constitutional and collective choice rules related to the governance of public forests, from the onset of the British Regime in 1763 until 1986, when the last significant legislative reform took place. To strengthen the validity of hypothesized causal relationships, a comparative historical and within-case analytical approach was used. The theoretical framework builds on the traditions of public choice and institutional analysis and relied on the Institutional Analysis and Development framework (IAD) to create a coherent approach. The evolution of forest governance institutions was considered across five distinct periods covering three different constitutional regimes: (1) Colonial rule 1763-1839 (2) Union government 1840-1866, (3) Provincial self-government prior to industrialisation 1867-1906, (4) Self-government following industrialisation 1907-1950, and (5) Québec following the quiet revolution 1960-1986.

This thesis argues that the evolution of forest governance institutions and the resulting struggle to develop more sustainable patterns of forest resource use in Québec are fundamentally tied to the constitutional choices that have concentrated the instrumentalities of collective action in the hands of the provincial government. Put differently, constitutional rules applicable to the use and management of public forests in the province ultimately affected outcomes in the world by exercising a determining effect on the habits, values, ideas and social institutions (i.e., variations) that were selected, replicated and enforced (i.e., inherited) over time. By exercising a monopoly over collective choice rights, this thesis finds that rules were systematically used to favour political-economic interests that neither served the public's interests, nor the need to achieve sustainable outcomes in the use of public forests.

Keywords: Governance, institutions, constitution, evolution, and collective action

CHAPTER I: INTRODUCTION

1.1 Research Problem

At the turn of the 21st century, the ability of government in Québec to responsibly administer the province's public forests faced its strongest challenge ever. Doubts over the sustainability of forest resource use at the scale of the entire boreal forest came to a head towards the end of the 1990s. The extent to which public forests were appropriately managed; addressed the interests of commercial and non-timber forest user groups; protected the long term interests of forest dependent communities or helped preserve the environment and biological diversity were but some of the issues that preoccupied the scientific community, citizens and interest groups during the 1990s. To appease concerns, the 1986 Forest Act was amended in 1994 to facilitate public participation in resource management decisions. Stronger language on the need for sustainable forest resource use was introduced in 1996 and formal discussions on the need to reform the existing legislation in light of emerging research on sustainable forest management were initiated in 1998.¹ Then in 1999, film-makers and activists Desjardins and Monderie² released their highly critical documentary film "L'Erreur Boréale." Scenes of vast clear cuts, poorly prepared government officials, a seemingly dysfunctional ministry, and compelling evidence of growing socio-economic and environmental costs helped galvanize public opinion on the need for serious reforms. Though the film's assertions were initially rejected by industry spokesmen, senior bureaucrats and various public officials, the government's ability to ward off the charges conferred against it was dealt a serious blow in 2002, when an investigation by the province's Auditor General revealed a similar slew of defects in the administration of public forests.³

¹ MRN. 1998. "Mise à jour du régime forestier. Document de référence". In *Bilan – Enjeux – Orientations*. Québec: Ministère des Ressources naturelles. 76 p.

² Desjardins, R., and R. Monderie. 1999. "L'Erreur boréale". Montreal: Cinema Libre and Office National du Film Canada

³ Rapport du Vérificateur général, 2002. "Faits saillants, chapitre 4: Les Ressources forestières". In *Rapport à l'Assemblée nationale pour l'année 2001-2002, Tome II*. Québec.

The situation became politically untenable and following a change of government in 2003, a full inquiry into the management of public forests was ordered. Drawing on the results of extensive consultations, the Commission for the Study of Public Forest Management released its report in December 2004. Though critical, the Commission's findings were neither new nor unexpected. In brief, the Commission found major failures relative to the governance and management of public forests, including widespread over-harvesting, flawed timber estimates, poor silvicultural practices and weak control mechanisms. To remedy the situation, the Commission recommended immediate reductions in harvesting rights, revisions to the maximum allowable cut,⁴ the adoption of an ecosystem-based management approach, and the decentralization of decision-making structures.

For the industry, the timing of the Commission and the government's promise to uphold the latter's recommendations could scarcely have come at a worse moment. As debate over the Commission's findings and recommendations entered the public arena, the forest sector was already feeling the brunt of growing economic uncertainty, sparked by, among other things – falling commodity prices, declining U.S. demand, the rising value of the Canadian dollar, and growing competition from Asian and South American producers. When precautionary reductions in harvesting rights were introduced in 2005 and 2006, the industry's line of defence quickly shifted from an overt confidence in the existing arrangements and conditions to warnings of dwindling levels of accessible and merchantable stock, rapidly aging processing facilities, and comparatively high labour costs. Within a matter of months, the industry fell into one of its worst crises ever. Forestry operations came to a near standstill, some 40,000 jobs were reportedly lost, several large firms sought bankruptcy protection, and forest-dependent communities were left to fend for themselves. While there are signs that the forest sector is slowly regaining strength and that a newly adopted forest legislation⁵ will go a long way towards answering stakeholder concerns and the recommendations of the 2004 Commission, the extent to which the proposed changes will in fact direct provincial forest management decisions towards more sustainable and equitable outcomes remains to be seen.

⁴ The maximum allowable cut is more commonly referred to as "le calcul de possibilité forestière."

⁵ Sustainable Forest Development Act, Bill 57 (L.Q., 2010, chapter 3)

Since the debate first caught the public's attention at the end of the 1990s, discussion on the origins of the government's mishandling of public resources largely focused on the legislative reforms of the 1980s and the faulty assumptions that were then used to determine the maximum sustainable yield. Yet, as any cursory overview of the history of forest management in Québec will show, concern over the administration of this public resource asset is not new. In fact, archival evidence shows that from the 1820s onwards, the mismanagement of public forests represents a recurrent theme in public debates, and the subject of ongoing inquiry both within and outside of government. Viewed through a historical lens, the reasons for Québec's (re)current forestry crisis become decidedly murkier. If sub-optimal patterns of forest resource can be traced as far back as the onset of commercial exploitation in the early 1800s, then the recent predicament of Québec's forest sector cannot entirely be attributed to flawed models, inadequate oversight, or poor management procedures. Other, more fundamental factors need to be considered.

Given that all forms of organization entail the need "to formulate rules for ordering relationships among the individuals who interact with one another" (V. Ostrom, [1980] 1999, p. 382), then one obvious place to start is to consider how the rules of the game actually affected the play of the game over time. This requires a shift in the level of analysis from the choices made within a given set of rules, to the rules that govern how choices are actually made and enforced (Buchanan, [1990] 1999; V. Ostrom, [1979] 2009). Moreover, if the struggle to manage Québec's public forests on a more sustainable basis is not new, then greater analytical attention should likewise be given to the way forest governance institutions evolved and why. Assuming that human social institutions constitute adaptive responses to ongoing human-environment interactions, and that past decisions have determining effects on the social and ecological outcomes that affect the iterative choice-sets and preferences of human agents in repetitive problem solving situations (Haydu, 1998; Katznelson, 2003; Sewell, 2005), then the development of a testable hypothesis that can help explain the chronic nature of Québec's forest resource problems implies a need to understand how the past came to forge the present.

Given that the right to make, alter or abrogate laws, rules and regulations pertaining to the use, management or alienation of public resources is constitutionally vested in provincial

legislatures within the Canadian context, then the phenomenon that needs to be explained is how forest resource institutions evolved in the hands of successive governments⁶ and why. Using an evolutionary approach to the study of institutional change (Blyth *et al.*, 2011; Hodgson and Knudsen, 2010; Lewis and Steinmo, 2012; Steinmo, 2010), this thesis seeks to understand how constitutional choice rules structured collective action arenas and the consequent selection, replication of forest governance institutions over time.

After a brief overview of the literature on the political economic structure and history of forest resource use in Québec and the broader Canadian context to clarify the gaps in the existing scholarship, the remainder of this Introduction is divided as follows: section 1.2 presents the research field; section 1.3, the research questions; section 1.4, methods; section 1.5, the thesis argument; section 1.6, the contributions of this thesis, and section 1.7, the general outline of the thesis sections.

1.1.1 Reasons for Inquiry: A Review of Past and Present Scholarship

Existing theoretical and analytical contributions to the study of natural resource use within the broader Canadian context answers only part of the puzzle posed by the recurrent patterns of overexploitation, and the boom and bust cycles of resource-led economic growth. This section presents the main contributions and limitations of the existing body of literature, dedicated to the study of forest resource use in Quebec and Canada more broadly. It ends with a brief introduction to the purpose and relevance of this study, relative to the current wealth of scholarship.

Of all the different strands of scholarship that have emerged over the years, none have made as significant a contribution to the study of Canadian resource exploitation as the staples thesis. The staples theory was developed by Harold Innis (1946, [1930] 1999) and others (e.g., Creighton, 1937; Lower, 1938, 1973; Mackintosh, 1923; Watkins, 1963) to explain export-led economic growth within the Canadian context, and its effects on regional development and infrastructure investments to support the production and transportation of

⁶ Following the Westminster model upon which the Canadian parliamentary system is established, “government” refers to the body of elected representatives that holds the confidence of the legislature and is therefore responsible to Parliament. “Government” thus implies “executive government”, and consists in the Prime Minister (or Premier in the provinces), the Cabinet (i.e., appointed ministers), and the Governor-General (or Lieutenant-Governor in the provinces). A more complete definition of government and its implications for analytical inquiry is developed in Chapter III.

raw and unprocessed staple commodities (i.e., natural resources) to foreign markets. It argues that in a comparatively vast and resource-rich landscape, the limited labour and capital pools of the early settlement period gave colonists a comparative advantage in the development of extractive industries, built around the supply of raw resource commodities to feed the insatiable but volatile and competitive commodity markets of early industrialism (Watkins, 1963, Drache, 1995). Over time, foreign investments, public indebtedness,⁷ uneven regional development, limited institutional authority (i.e., enduring colonial status), and heavy dependence on foreign manufactured goods collectively created positive feedback loops that undermined the development of strong indigenous market institutions, thus furthering Canada's political-economic dependence on staple-led economic growth (Drache, 1995, pp. xix-xxx).

Reliance on the staples theory, to explain forest resource over time in Quebec and elsewhere in Canada, has yielded mixed results. Creighton (1937) for instance, purposefully sought to link the intransigent needs of early commercial imperialism to the development of Canada's constitutional foundations, but his arguments fall short of explaining the continuity of resource driven institutional developments in Canada after the repeal of the corn laws in the mid-nineteenth century. Lower (1973, p. 119), furthered that local control over Canada's forests was figurative only, for as he concluded, "no storehouse of raw materials needed by the outside world [could] have much mastery over its destiny". Like Creighton, Lower posited that the forest industry in Québec (and Ontario) flourished as it did because of favourable economic incentives, access to cheap and abundant supplies, a largely subservient workforce, and the geographic outlay of the greater St-Lawrence drainage system, which provided unimpeded access to the forest wealth of the North American interior. While Lower recognized the pervasive effects of government institutions and trade policies on the incentives resource users faced, analytical emphasis was placed on the dynamics of the resource-led development, and not the development and path of resource institutions per se. More recent scholarship in the staples tradition shows that the link between Canada and foreign commodity markets, and the internal dynamics of resource exploitation have both changed and become more complex in the last several decades (e.g., Brownsey and Howlett,

⁷ Due to public investments in large infrastructure projects that were designed to reduce transportation costs of increasingly remote and bulky staple resources, and regulate water flows to ensure constant supply of energy.

2008).⁸ However, as with past studies in this genre, the critical question of why past and present efforts to improve the sustainability, efficiency, or equity of staple-producing industries remain such a struggle is left unexamined. The origins, development, and consequences of natural resource governance institutions are not addressed.

In spite of the fact that the proposed structural interpretation of Canada's political-economic history is largely consistent with empirical evidence, the explanatory depth of the staples thesis presents several drawbacks. Among other things, the staples thesis largely omits the role of agency; it undermines the long run effects of social institutions (i.e., rules) on the choice-sets of actors over time; and it neglects the role of endogenous power structures in the governance and exploitation of natural resources. Whether old or new, the analytical framework of the staples tradition provides but a partial view of the underlying dynamics that have conditioned natural resource use for the better part of the last two centuries. Hence, even though scholarship in the staples tradition has considerably furthered our understanding of the consequence of choice (i.e., the general dynamics of economic development in Canada), it has not been as effective in explaining the choices themselves.

Another venerable strand of scholarship that deals with the political economic structure of forest and natural resource use in Canada rests in the use of policy science methods (Howlett and Ramesh, 2003). Policy science, which concerns itself with the study of government-in-action, has been useful in generating an understanding of the observable patterns of political behaviour, the complex set of interactions that inform policy, and the comparative strengths and interests of the various groups of actors (i.e., policy communities or advocacy coalitions) vying for public attention and a role in the policy making process (e.g., Cashore and Vertinsky, 2000; Grant, 1990; Hessing *et al.*, 2005; Howlett and Rayner, 1995, 2001; Lindquist and Wellstead, 2001; Pross, 1986; Wellstead *et al.*, 2004). Emphasis in this tradition is placed on how actors, interests and ideas coalesce to form 'policy beliefs' within jostling sets of 'policy subsystems,' which interact to set the 'policy agenda' or affect the underlying 'policy regime' (i.e., paradigm) within which actors operate (Howlett, 2001; Howlett and Ramesh, 2003; Hessing, 2005). The contribution that is most relevant to the intentions of this thesis was developed by Howlett and Rayner (1995, 2001). The authors

⁸ See Special Issue, 2007 Can. Poli. Sc. Rev., Vol.1, Issue. 1

brush a broad interpretation of the evolution of forest policy regimes throughout Canada. They argue that the overall pattern of forest policy development proceeded from a largely unregulated situation towards a series of regimes focused on revenue, conservation, management (i.e., liquidation and conversion), and most recently, integrated use and sustainability. Central to the general dynamics of forest policy change are the close connections that lie between industry and government, and their quasi monopoly over forest policy decisions, aided by the employment interests of labour, and only recently challenged by the nascent environmental movement. While insightful of the different stages that have marked the progress of forest resource use in Québec and elsewhere in Canada, the coarse filter used to separate the hypothesized stages of development necessarily leaves out important details concerning the factors and events that characterize the proposed generalizations. In addition to the fact that the suggested framework provides limited insights on why, when and how purported changes occurred, it leaves behind the broader issue of the problems resource users and administrators faced over time, and the incentives and constraints that structured their respective situations.

Consequently, scholarship in this tradition has little to say about how collective action proceeds or might be improved and the structure of the situation that affect the iterative choice-sets of actors over time. Moreover, reliance on a simplified model of reality, the policy cycle, tends to underestimate the complexity and pitfalls of how actors actually learn, communicate, develop norms of trust and reciprocity, and seek to affect change. Choice and agency are not constitutive of the suggested policy process, nor is there any interest in developing testable propositions of alternative arrangements that could potentially improve outcomes in human-environment interactions. More fundamentally, contributions in this field deny the importance of the underlying rules of the game, as explanatory variables to the conclusions reached. As Howlett and Ramesh (2003, p. 3) put it, the focus is not “on the structure of governments or the behaviour of political actors, or on what governments should or ought to do, but on what governments actually do.” In short, the aim of research in this tradition is to determine “who gets what, when, and how” (Lasswell, 1958), which, as V. Ostrom ([1979] 2009, p.16) pointed out several decades ago, has yet to provide “a noticeable

improvement in the quality of generalizations that can be made about political [and indeed environmentally related] phenomena.”

The role of Québec’s forests in the economic development of the province has also been discussed in more or less general terms by a number of other historians, including Faucher (1970), Ouellet (1980), Hamelin and Roby (1971), Rumilly (1977), and Armstrong (1984). Others have sought to chronicle specific events and historical developments, such as: the links between forestry and Québec’s early agrarian economy (e.g., Hardy, 2011; Séguin, 1977); regional histories of Quebec’s forest economy (Côté, 1999; Lee, 2006); the rate of timber harvesting in nineteenth century Québec and Ontario (Gaudreau, 1999); the life and times of early lumbermen (Hughson and Bond, 1965); the evolution of forest labour conditions (Legendre, 2005); the development of pulp and paper manufacturing (Charland, 1990); changes in forest legislation (Asselin, 1944; Bouffard, 1921; White, [1899] 1907); the development of the sustainable yield paradigm (Bouthillier, 2001); the limited success of the conservation movement (Hébert, 2006; Hodgins *et al.*, 1982); and the more or less systematic failure of both provincial and federal governments to improve forest resource use outcomes over time (Gillis and Roach, 1986; Malenfant, 1987; Nelles, 1974). While these works offer rich accounts of the people, decisions and events that shaped the course of human-forest interactions in Québec from the eighteenth century onwards, the focus of these contributions is essentially historical and therefore descriptive. Theoretical assumptions are either unspecified (e.g., Gillis and Roach, 1986; Hodgins *et al.*, 1982; Bouthillier, 2001) or broadly grounded in the staples theory or a close variant (e.g., Gaudreau, 1999; Hardy, 2011; Lower, 1936, 1938; Malenfant, 1987). The relationship between institutions, the incentives resource users and political economic agents faced, the nature of the goods involved and the resource system as a whole, as well as the means to aggregate preferences (i.e., decision-making arenas) are absent from most accounts. The failure to amend problematic situations that lead to resource problems and their externalities are attributed to such factors as the “lack of political will” (e.g., Gillis and Roach, 1986), poorly adapted technocratic solutions (e.g., Bouthillier, 2001), heterogeneous core-periphery relationships (e.g., Gaudreau, 1999; Lower,

1938), and the relentless push towards the accumulation of capital (e.g., Malenfant, 1987).⁹ As such, existing contributions to the history of forest resource use in Québec and the evolution of forest governance institutions in particular are incomplete. Missing links between selected events are numerous, reliance on secondary and often misread sources of data are common, and conclusions about hypothesized theories or predictions are often indeterminate, due to the lack of tracing of the variables of interest.

To be sure, the history of forest exploitation in Canada is replete with stories of failed experiments, overexploitation, and socio-economic hardship (e.g., Lower, 1938, 1973; MacKay, 1985; Marchak, 1983; Minville, 1944; Swift, 1983). The fact that forest governance institutions in Québec and those charged with their enforcement have more or less systematically failed to safeguard the long-term viability of forest systems in the province has likewise been well documented (e.g., Coulombe, 2004; Gillis and Roach, 1986; Hodgins *et al.*, 1982; Malenfant, 1987; Minville, 1944). However, in spite of such scholarship, the search for an endogenous theory of institutional change that can explain the emergence of staple-led industrial growth (and resource exploitation), the dominance of government and industry actors in defining public policy, and the marginal success of those outside of dominant coalitions to affect change remains largely unaddressed.

If institutional arrangements constitute adaptive responses to changing social-environmental conditions (Blyth *et al.*, 2011; Lewis and Steinmo, 2012), then any effort to understand the evolutionary dynamics of a given social-ecological system must necessarily consider how the selection, inheritance, and replication of institutional variations proceeds within a given social-order. Yet, in spite of the fact that natural resource rights in Canada are predominantly vested in provincial legislatures, the relationship between repeated policy failures and the rule-ordered arrangements applicable to the administration of public affairs in

⁹ The contribution of Malenfant (1987) to the political-economic history of forest resource use in Québec deserves to be singled out. Using Wallerstein's (1974) world-system approach and the staples thesis as his theoretical foundation, Malenfant (1987) traced the evolution of forest resource use in Quebec from the start of the French regime until 1986. While most of his analysis is based on secondary sources of information, Malenfant clearly demonstrated the remarkable consistency of forest resource use outcomes, relative to the distribution of benefits and the social and environmental costs that were generated. This thesis both complements and challenges some of the results of this earlier inquiry. While Malenfant posited that the use and exploitation of forest resources in Quebec emerged out of an overt drive to support the accumulation of capital and concentrate the means of production, the approach taken here argues that such outcomes are attributable to the institutional context, and the incentives they generated. I remain however indebted to Malenfant, for his provocative insights and his insistence that history matters when it comes time to understanding political-economic phenomena.

the provinces has so far solicited very little attention from scholars. This is surprising, given that the right to make laws pertaining to “the management and sale of the public lands” belongs to provincial legislatures, as do “the timber and wood thereon,”¹⁰ and the “mines, minerals, and royalties”¹¹ that may be extracted from the public domain. While such authority has been discussed by constitutional scholars (e.g., Cairns, 1992; La Forest, 1969; Moull, 1983) and political scientists (Hessing *et al.*, 2005; Ross, 1995), and is acknowledged by most students of forestry in the Canadian context (Howlett, 2001), the evolution and consequences of Canada’s constitutional choices relative to the use and management of natural resources remain under investigated. For the most part, the constitutional setting is “taken as a meta-contextual given within which any form of analysis...must take place” (Howlett, 2009, p. 159). In other words, scholarship on the social, political, and economic dimensions of natural resource use in Canada has largely focused on the play of the game within the existing set of rules. The governing variables that effectively structure the nature of the game have not been the subject of formal empirical inquiry. Missing from the existing literature are the links between the extensive executive powers of provincial cabinets (Bernier *et al.*, 2005; Dunn, 1990, 2006), the relative absence of appropriate checks and balances in the political institutions of Canada (Hicks, 2010; Mallory, [1974] 2011, [1984] 2011; Simeon, [2006] 2011; Smith, 1991), and the incentives provincial governments face in determining the use and management of natural resources under their jurisdictional authority. This thesis seeks to address these issues and the corresponding gaps of the existing literature.

1.2 Research Field

This thesis is grounded in the field of political economy, which draws attention to the interrelatedness of political science and economics. It builds on the distinct yet closely related research programs of public choice and institutional analysis, and their shared commitment to the role that institutions play in structuring the incentives and constraints individuals face in interactive settings, and the outcomes they produce.¹² Common to both is a reliance on

¹⁰ Section 92(5) of the Constitution Act 1867/1982

¹¹ *Ibid.*, Section 109.

¹² New Institutional Economics, which emphasizes importance of interactions within particular institutional forms, including transaction costs and property rights and Rational Choice Institutionalism, which seeks to apply rational choice behavioural assumptions to the entire spectrum of political interactions (McGinnis, 2000, pp. 10-11) represent two related fields of study that are largely consistent with Public Choice and Institutional Analysis. The growing fields of comparative historical (Mahoney and Rueschemeyer, 2003) and analytical narratives (Bates *et al.*, 1998; Greif, 2006) parallel these developments.

inductive methods of analytical reasoning to develop empirically grounded theoretical propositions that can be further tested and elaborated upon through a variety of methods and empirical settings. Emphasis is placed on the ways in which societies organize themselves to solve dilemma situations, produce public goods, and develop rule-ordered relationships that are responsive to the vulnerabilities of political economic structures. While contributions in the Public Choice tradition primarily, though not exclusively, concern the factors that affect non-market decision-making in government structures, scholars associated with Institutional Analysis have purposefully sought to expand their research agenda to include issues relevant to non-market and non-hierarchical organizations, and the provisioning problems associated with both public goods and common-pool resources. Consequently, Public Choice is more closely associated with efforts to understand the performance of *political* economies, Institutional Analysis focuses its analytical attention on *public* economies broadly considered (Aligica and Boettke, 2011). Both approaches are evaluative in nature and use comparable frameworks to study the administration of human affairs. A central lesson of Public Choice and Institutional Analysis is that owing to the complexity of human interactions, no system of rules or governance structure can yield superior outcomes in all situations (Buchanan, [1981] 2001; Buchanan and Tullock, 1962; E. Ostrom, 2005b, 2007).

1.3 Distinctions

Public Choice may be better understood as a revival of the intellectual tradition of the seventeenth and eighteenth century political philosophers. The modern approach to public choice takes as its source the works of nineteenth century Swedish economist Knut Wicksell and later contributions by Black (1948; 1958), Arrow (1951), and Downs (1957) among others (see Rowley, 2008). In its more elementary form, public choice relates to the study of “alternative political choice structures” (i.e., rules) and their corresponding effects on the behaviours of political and economic agents (Buchanan, [1979] 1999, p. 48; [1987] 2001a, p. 8). Specifically, public choice uses the tools and methods developed in economic theory, and applies these to the political sphere, all the while recognizing that economic theory is relatively simple in comparison to the world of politics (Buchanan [1979] 1999, p. 48-50). The reasons for such complexities are twofold. First, efficient or equitable *political exchange* can only proceed in light of prior agreement, a contract that establishes the constitutional order within which actors agree to operate. And second, “*political exchange* necessarily

involves *all* members of the relevant community rather than just the two trading partners that characterize economic exchange” (*Ibid*, emphasis in original). The quest to resolve these two fundamental problems underlies much of the Public Choice research agenda.

The development of an economic theory of constitutions was the primary purpose of Buchanan and Tullock’s (1962) seminal contribution, the *Calculus of Consent* (Buchanan, [1979] 1999, p. 50, f.n.3). Building on the insights of the classical moral philosophers (Hobbes, Spinoza, Rousseau, Locke, Hume, Smith, Montesquieu and the authors of the *Federalists* – Hamilton, Madison, and Jay), Buchanan and Tullock introduced a series of crucial insights that had profound effects on the scope and purpose of the several strands of institutional analysis that were then emerging, provided fertile ground for the development of a more comprehensive theory of collective action, reaffirmed the science of political economic scholarship, and established what Vincent Ostrom would later refer to as the “*logical foundations of constitutional democracy*” ([1997] 2012, p. 91, emphasis in original). The *Calculus* is credited with distinguishing between the level of constitutional choice, which sets the rules for collective action, and the operational level of collective choice, which pertains to the actual pursuit of collective action or “ordinary politics” within the bounds of previously established rules. The central premise of the theory of constitutions developed in the *Calculus* concerns the limits to be placed on the exercise of government, including what the appropriate sphere of political action should be and the normative criteria by which government actions ought to be directed and evaluated. In short, the *Calculus* re-introduced contractarianism as a fundamental precept to social order and differentiated the distinctive decision-making requirements of near unanimity at the constitutional level versus the more diversified range of possibilities for making collective or operational level decisions. Further, by viewing politics as a process of exchange, the *Calculus* brought to light the fallible nature of government and the limited assurances that majoritarian voting schemes provide against the inherent problems of cyclical majorities, vote trading, logrolling and the principal-agent problem of electoral competitions (Buchanan, [1979] 1999). Finally, by arguing that politicians and bureaucrats are essentially ordinary people with subjective preferences, motivations and interests “much like the rest of us,” Buchanan and Tullock (1962) turned the Weberian conception of the rational and efficient public bureaucracy on its head and called

attention to the limits of legislative control over the discretionary powers of bureaucracy (Buchanan [1979] 1999, pp. 56-57), thus setting the stage for other major contributions in the public choice tradition, including the rent-seeking insight (Krueger, 1974; Tollison, 1997; Tullock, 1965) and the principal-agent problem of public bureaucracies (Knott and Miller, 1987; Miller, 1992) among others.

Constitutional political economics,¹³ as it is now understood, emerged in the 1970s as a way to analyse the effects of alternative sets of rules or “*choice of constraints*,” as opposed to “*choices made within constraints*” (i.e., policies, rules, legislations) (Buchanan [1987] 2001, pp. 4-7). Drawing on Wicksell (1896), Buchanan urged lasting reform cannot emerge from changes made within existing rules, but from changes in the rules for making decisions (Buchanan, [1981] 2001, p. 46; [1987] 2001, p. 10). In this sense, “[t]he laws and institutions that define the economic-political order become the variables subject to possible adjustments and reform” (Buchanan, [1990] 1999, p. 388). To understand the limitations of an existing social order and develop normative advice that can withstand the scrutiny of scientific warrantability, constitutional economics relies on the positive analysis (i.e., what is) of normative issues (i.e., what ought) such as efficiency, distributional equity, or environmental sustainability. Attention is placed on how individuals can realize mutual gains by jointly committing to social orders that can guide their interactions towards more productive paths than what would otherwise be the case (Vanberg, 2006, pp. 2-3).

While constitutional economics is essentially comparative in nature – testing alternative rule structures that yield Pareto better outcomes – emphasis in this thesis is placed on the theoretical underpinnings of constitutional political economics. And since the primary motive for this research lies in developing a hypothesis that can better explain the historical patterns of forest resource use in Québec, pre-constitutional issues relevant to decision-making processes, unanimity, and use of a hypothetical “veil” (Buchanan and Tullock, 1962; Rawls, 1971) are not formally addressed. Contributions from constitutional economists in the

¹³ McKenzie (1984) is credited with having introduced the term “constitutional economics”. Buchanan (2004, p. 65) succinctly summarises constitutional political economy as a “domain of inquiry and discourse among scientists who choose to perceive social interaction as a set of complex relationships, both actual and potential, among autonomous persons, each of whom is capable of making rational choices.”

public choice tradition were used as structuring elements of the analytical framework developed in Chapters II and III.

Institutional Analysis, as embodied in the collected works of Elinor and Vincent Ostrom, and the growing number of scholars who share their vision, begins where public choice ends (V. Ostrom, 2009), by explicitly inviting scholars and practitioners to extend analytical inquiry beyond the limitations of markets and hierarchies (E. Ostrom, 2005a, 2010a; E. Ostrom and Walker, [1997] 2000; V. Ostrom, 1997; V. Ostrom and Ostrom, [1971] 2000). The Bloomington School of Institutional Analysis, as it is increasingly being referred to (Aligica and Boettke, 2009, 2011; Eggertsson, 2010), embodies an interdisciplinary research programme that is arguably one of the most dynamic and ambitious efforts to date in the broad field of political economic studies. While the core of this research programme has yet to be defined in any succinct or broadly accepted terms (Aligica and Boettke, 2009), the ontological and methodological foundations of institutional analysis are sufficiently robust and unique to suggest that the approach developed by the Ostroms and their colleagues represents a unique school of thought in public administration (Aligica and Boettke, 2009, 2011; Eggertsson, 2010; Toonen, 2010). To better situate this thesis within the broad scope of the Bloomington research agenda, I briefly sketch out the relevant elements of the School's theoretical and methodological contributions in terms of core ontological postulates rather than conjectures that await the scrutiny of further empirical analyses or more elaborate theoretical developments.¹⁴

The central tenet of institutional analysis is that individuals are not necessarily trapped in the dilemmas they face (E. Ostrom, 1990, 1998, 1999, 2009a, 2010a). Opportunities for choice exist. Through learning, communication, and the sharing of ideas and values, individuals can develop norms of trust and reciprocity, facilitate organization, and create rule-ordered arrangements that support mutually productive outcomes (E. Ostrom and Walker, 2003; V. Ostrom, 1997; Poteete *et al.*, 2010). From the provision of public goods to the sustainable use of common-pool resources, Workshop scholars have relentlessly pursued the development of an empirically grounded theory of collective action that has since

¹⁴ For recent discussions on the depth and scope of contributions using Institutional Analysis and in particular, scholarship associated with the Workshop in Political Theory and Policy Analysis at Indiana University, see Ostrom (2010); Aligica and Boettke (2009, 2011); Eggertsson (2010); Toonen (2010); McGinnis and Walker (2010); and Poteete *et al.*, (2010).

changed the way most scholars think about and analyse dilemma situations and the capacity of humans to find enduring solutions to their problems (E. Ostrom, 1998, 2009a, 2010; Poteete *et al.*, 2010). Human systems are regarded as complex adaptive systems (Janssen, 2002; Janssen *et al.*, 2007; E. Ostrom, 2007, 2008b), endowed with the capacity and indeed propensity to self-organize into units of varying size and composition (Toonen, 2010, p. 199). And like all self-organizing organisms, the social structures humans create tend to be polycentric in nature, not monocentric.

Polycentricity and complexity are regarded as essential elements of productive rule-ordered relationships (Aligica and Boettke, 2011; Eggertsson, 2010; Toonen, 2010). Complexity must be met with complexity (Ashby, 1956; E. Ostrom, 2010a; V. Ostrom, 1997) and when compared to monocentric systems of governance, polycentricity radically increases the degree of variety that humans can potentially access to maintain “some essential value or values within limits” (V. Ostrom, 1997, p. 121). As complex adaptive systems, institutional analysis assumes that nearly every human situation represents a constituent part of a “part-whole structure” that is itself nested in ever larger forms of organisation (E. Ostrom, 2005b, p. 11). At the base of this hierarchical scaffold lie the essential ingredients of human distinctiveness, captured in terms of values, ideas and beliefs that are expressed through language, and acquired through learning and the development of shared communities of understanding (V. Ostrom, 1997). Regularized social interaction depends on the use of rules to order relationships among interacting individuals. And since rules are essentially linguistic constructions that rely upon the use of knowledge, norms and cultural referents – “artifacts that contain their artisans” (V. Ostrom, [1980] 1999), the potential for institutional diversity is nearly limitless (E. Ostrom, 2005b).

A hallmark of the Bloomington research program has been to treat institutional diversity with analytical diversity (Poteete *et al.*, 2010). Years of empirical research in diverse institutional settings across all regions of the globe combined with a profound respect for all disciplinary perspectives, and an unyielding commitment to the use of multiple methods of inquiry have led scholars of the Bloomington research program to make numerous critical advances towards the development of (epistemic) communities of shared understanding. Crucial distinctions have been introduced regarding a wide range of factors

that directly or indirectly affect resource use outcomes in different settings.¹⁵ They include: the nature of goods (E. Ostrom *et al.*, 1994; E. Ostrom and Walker, [1997] 2000; V. Ostrom and Ostrom, [1971] 2000) the three worlds of action (Kiser and Ostrom, [1982] 2000); the fundamental elements that can be used to analyse and evaluate outcomes in the different levels of decision making and the composite elements of the prototypical structure of an action situation (Kiser and Ostrom, [1982] 2000; E. Ostrom, 1986; 2005b); the limitations of the conventional theory of collective action (National Research Council, 2002; E. Ostrom, 1990; Poteete *et al.*, 2010); the role of trust and reciprocity in overcoming dilemmas (E. Ostrom and Walker, 2003; Rothstein, 2005); the bundles of property rights (Schlager and Ostrom, 1992); the grammar of institutions (Crawford and Ostrom, 1995); the structure of common-pool resource situations (E. Ostrom, 1990, 1999; E. Ostrom *et al.*, 1994); the emerging theory of human behaviour (E. Ostrom, 1998, 2010b; Poteete *et al.*, 2010); the microsituational variables that affect cooperation (Poteete *et al.*, 2010, p. 228-233); design principles for long enduring resource institutions (Cox *et al.*, 2010; E. Ostrom, 1990, 2005b); the constitutional level of analysis (V. Ostrom, 1987, [1979] 2009, [1982] 1999); and what it means to live in democratic polities (McGinnis and Ostrom, [1999] 2012; V. Ostrom, 1973, 1987, 1991, 1997, [2002] 2012). Together, these and many other contributions have allowed scholars associated with the Bloomington School to develop frameworks for analyzing the diversity of human situations (the Institutional Analysis and Development framework – see Ostrom, 2005b) and the complexities of social-ecological systems (E. Ostrom, 2007, 2009b) through the use of meta-theoretical, multidisciplinary, and multi-tiered conceptual maps that allow researchers to dissect the complex problematical situations into their working parts to better understand the weight and effects of variables that impinge on human actions.

The Bloomington School shares many of the concerns that have guided James Buchanan's own efforts to develop a theory of constitutional political economic order. Both schools represent an extension of the fundamental questions that preoccupied the moral, political, and economic philosophers of the 17th and 18th centuries, but the Ostroms pushed their own reflection and appreciation of the central problem of collective action beyond the mere need for constraints in the exercise of public choice. As Elinor Ostrom put it, two key questions underlie all of the School's work: "how can fallible human beings achieve and

¹⁵ Contributions that have a direct bearing on this thesis are examined in section 1.4 and in Chapters II and III.

sustain self-governing entities and self-governing ways of life,” and “[h]ow can individuals influence the rules that structure their lives” (quoted in Aligica and Boettke, 2009, p.159). For the Ostroms, self-governance does not imply the removal of state-government, the privatization of public goods, or a societal shift towards communal governance regimes writ large. Rather, something called democracy exists when citizens jointly and voluntarily act to find solutions to the problems and dilemmas they face: “[C]itizens need to understand that they participate in the constitution and reconstitution of rule-governed polities. And they need to learn the *art and science of association*” (*Ibid*), which Tocqueville ([1835-1840] 1990) rightly understood as the foundation for a theory of collective action. In this sense, polycentricity, self-governance, and self-organization are neither panaceas, nor should they be considered contrary to emergent ideas on the effectiveness of centripetal governance (Gerring and Thacker, 2008),¹⁶ Instead, they provide a framework for considering alternative structures of association that give meaning to human agency as citizens and participants in democratic structures, as well as a more diversified set of tools and theories for coping with increasingly complex social-ecological problems. In this view, the Institutional Analysis and Development framework¹⁷ was used to structure and guide the development of this thesis, and contributions from the Bloomington School were used to strengthen the overall theoretical framework addressed in Chapters II and III.

While public choice and institutional analysis provide the core theoretical elements of this thesis, studies dealing with the evolution of institutional arrangements in common-pool resource situations – using comparative historical analyses as a methodological foundation – are relatively rare. This created a number of methodological and conceptual challenges, but also opportunities to break new ground by bringing attention to the historical nature of modern resource dilemmas, including the long term effects of initial set conditions on the evolution of resource governance institutions and the capacity of actors to solve the problems they confront. To this end, this thesis also draws heavily from the complementary insights of historical and sociological institutionalism, and in particular, recent scholarship on the evolutionary dynamics of institutional change (see Chapter II).

¹⁶ Recent scholarship on centripetal democratic governance (Gerring and Thacker, 2004, 2008; Gerring *et al.*, 2005, 2009), and its relationship to the underlying theoretical framework used in this thesis are discussed in Chapter III.

¹⁷ A modified version of the framework, along with explanatory notes on its structure and application are presented in the section on Methods.

1.3.1 Two Core Postulates

Structural – Individual Interdependency: Methodological and normative individualism are central to public choice and the Bloomington research program (Buchanan and Tullock, 1962; V. Ostrom, 1997). While careful not to discard the social, cultural and institutional contexts within which choices are made and the subjective heuristics people use to make decisions in complex settings (V. Ostrom, 1997, pp. 102-108), methodological individualism asserts that only individuals choose, not societies nor collectives (Buchanan, [1987] 2001a; Buchanan and Tullock, 1962). However, if individuals are embedded in, and conditioned by, their social circumstances and the institutional milieu that frames their habits, values and beliefs, then the idea that complex social phenomena can be reduced to the autonomous choices of rational sovereigns, as Buchanan ([1990] 1999, p. 383) suggests, would tend towards an oversimplification of causation – an assumption that is both empirically and theoretically unwarranted.¹⁸ A more complex appreciation of the causal mechanisms underpinning social outcomes and the challenges inherent to the task of social enquiry is applied in this thesis.

Following Arrow (1994), Archer (1995), Katznelson (2003), and Hodgson (2007a, 2010), I assume that agency and structure are interdependent. In other words, choice is always embedded in context, rooted in normative and socialized habits that form enduring (pre)dispositions (i.e., values and beliefs) or “solidarities”, as Bourdieu (2000, p. 145) put it, between the “socialized body” and “the social body.” Accordingly, “[a]gency is both free and constrained. Human beings are reflective of, and reactive to, their circumstances, as well as being conditioned by them” (Hodgson (2007a, p. 102). Under such circumstances, time becomes crucial to the study of social phenomena, for the manifestation of observable outcomes necessarily evolves from the dynamic interplay of structure and agency (Archer, 1995, p. 65). From an “evolutionary perspective” Hodgson (2010, pp. 14-15) furthers, structural-individual interdependency implies the need to “understand how individuals are affected by social structures, as well as how structures are constituted by individuals.” Movement back and forth between the two is essential, for “all viable explanations of social

¹⁸ As Hodgson argues (2012, p. 43), “No social science can derive its explanation from the properties [or attributes] of individuals alone”. For assessments of the different and contradictory meanings assigned to the concept of methodological individualism, see Udehn (2002) and Hodgson (2007b). For a critique of the ontological, theoretical and empirical foundations of methodological individualism, see Hodgson (2004, 2007a)

phenomena involve both individuals and social structures: there is no known exception” (*Ibid.*, p. 14).

As a postulate for analytical inquiry, structural-individual interdependency means that “history cannot be explicated without theory, that social wholes are not reducible to the sum of individual parts, and that the properties and features of individuals are deeply shaped by their situation inside large-scale structures and processes” (Katznelson, 2003, p. 280). Hence, even though actors may not be *a priori* trapped in the dilemmas they face, their ability to solve such problems depends as much on the social-cultural ethos and habits that inform their values, norms and beliefs, as it does on the reliability of their mental models, and the prevailing political-economic structures that have shaped their institutional environment and power relations over time.

Boundedly Rational Behaviour: A corollary to the postulate of structural-individual interdependency is the idea that human actors have inherently limited cognitive and reasoning capabilities. Instead of assuming that individuals are able to rank order their preferences along some internal value scale, as in the public choice tradition (Buchanan, [1990] 1999, pp. 391-392), the approach taken here posits that actors are boundedly rational beings that rely on rules of thumb or similar other heuristics to deal with complexity and uncertainty (Simon, 1957, 1997). Following more recent contributions by Elinor Ostrom (1998, 2010b) and colleagues (e.g., E. Ostrom *et al.*, 1994; Poteete *et al.*, 2010), actors are assumed to be purposeful in their actions; capable of learning and improving their understanding of the structure of the situation they face; achieve greater predictability in their decisions over time; and incorporate other-regarding norms and preferences (Poteete *et al.*, 2010, pp. 222-223). However, to explain social outcomes from an evolutionary perspective, this thesis turns again to the crucial role of habits and instinct, as distinct and precursory elements of reason, deliberation, and choice (Hodgson, 2010, p. 2).

Following the insights of pragmatist philosophers and institutional economists such as John Dewey and Thorstein Veblen, Hodgson argues that habits constitute “submerged repertoires of potential thought or behaviour” that “act as filters of experience and the foundations of intuition and interpretation” (2007a, pp. 106-107). Habits are informed by the cultural knowledge that emerges from social processes of trial and error learning. They

constitute cultural and normative adaptations, and together with biological instincts, they ultimately affect the preferences and beliefs of individual choice sets (*Ibid.*, 2010, pp. 12-14).

By modulating the “durability, power, and normative authority” of rules, preference-creating habits become essential constituents of any effort to measure the performance of emergent institutions (*Ibid.*, 2007a, p. 107). New rules can alter habits, beliefs, and preferences through ongoing cycles of adaptation that lead to cultural selection and the development of revised normative assumptions, incentives and constraints. From an evolutionary perspective, individuals, therefore, are affected by habit-forming “social structures,” and “structures are constituted by individuals” who can exercise agency, and thus introduce variety and complexity in the systems they create (*Ibid.*, 2010, p. 15). Hence, the “endogenous preference formation” of habits suggests that “history provides the resources and constraints” through “which we think, act and create” (*Ibid.*, 2007, pp. 108-109). Incorporating the role of habits in the basic definition of boundedly rational behaviour is essential for understanding preference formation over time, and the resulting choices that affected the evolution of governance institutions in comparative historical analyses.

1.4 Research Questions

Consistent with the central concerns of constitutional political economic theory and the evolutionary dynamics of institutional change in complex adaptive socio-ecological systems, the overarching question guiding this thesis is as follows:

How have forest governance institutions in the province of Québec evolved and why?

Underlying this question is the need to understand the role of initial set conditions on the constitution of social order and the evolving interests of those who held collective-choice rights over the use and management of forests during the formative years of the province’s history. In other words, in order to appreciate how and why forest governance institutions in Québec evolved the way they did, one needs to acquire a theoretical and empirical understanding of the linkages that lie between the nature of social order, the long-run effects of social-ecological commitments (i.e., policies) and outcomes, and the constant flux of change in the preferences and strategies of the evolving set of actors who were faced with reiterated problem-solving situations. To develop a plausible answer to the overarching issue

of institutional change in Québec's forest sector, four separate but linked clusters of questions were addressed. The first two deal with theoretical issues and third and fourth clusters focus on empirical evidence.

1. Institutional change in the context of natural resource use (Chapter II).
 - How do resource governance institutions evolve and why?
 - What role, if any, do constitutional choices play in the progress of institutional change?
2. The nature of constitutional choice rules (Chapter III).
 - What are constitutional choice rules?
 - How do they affect choices at the collective and operational levels?
 - What is the nature of social order in the Canadian provincial context and in Québec more specifically?
3. The evolution of forest governance institutions in Québec prior to Confederation (Chapters IV and V).
 - How did centralized forest resource governance in Québec emerge and why?
 - What factors, events, or conditions informed the choice-sets of those charged with the administration of public affairs in the province, including the use and management of public forests?
4. The consequences of constitutional and collective choices in reiterated problem-solving situations and their effects on the evolutionary dynamics of forest governance institutions in Québec (Chapters VI, VII and VIII).
 - What problems did political-economic actors face over time, how were forest governance institutions changed to address such emergent situations, and what effects did these decisions have on subsequent problem-solving situations?
 - How have constitutional choice rules affected the evolution of forest governance institutions in Québec?
 - What effects, if any, has the concentration of collective-choice rights over the use and management of public forests in Québec had on the resulting patterns of forest resource use in the province?

In the end, the purpose of this thesis is to contribute to the development of a more comprehensive understanding of the evolution of forest governance institutions in Québec. By bringing attention to the causal influence of initial set conditions in the administration of public resources and the long term consequences of reiterated problem-solving efforts by

those who hold collective-choice rights over the use and management of public forests in the province, this thesis develops a testable hypothesis on the influence of constitutional choice rules on the evolution of forest governance institutions in Québec and the resulting patterns of forest resource use over time.

1.5 Methods

The relationship between constitutional rules, institutional change and forest resource use outcomes in Québec was investigated through a comparative historical analysis of five distinct time periods, using a case study approach. Case study research provides an ideal framework for testing and developing theoretical explanations that are consistent with historically situated phenomena (George and Bennett, 2005, p. 20; Lijphart, 1971, p. 691). George and Bennett (2005, p. 5) define case study research as “a detailed examination of an aspect of a historical episode to develop or test historical explanations that may be generalizable to other events.” Through “the intense study of a limited number of units (or cases),” case study methods provide greater internal validity and analytical depth, as well as a stronger foundation for exploring causal mechanisms and the consistency of causal relationships that can either validate theoretical predictions or enable the development of more plausible hypotheses (Gerring, 2007, pp. 37-38). As such, case-study research is particularly well suited for the study of causes-of-effects, as opposed to the effects-of-causes (Brady and Collier, 2004; Mahoney and Goertz, 2006). Indeterminacy is minimized by placing analytical weight on “whether and how” selected variables affect outcomes rather than “how much” they do so (Bennett and Elman, 2006b, pp. 457-458; George and Bennett, 2005, p. 25). Nevertheless, trading breadth and frequency for depth and limited variance does create a number of limitations. Of specific relevance to this study are the consequences that flow from its limited geographic scope and small number of selected cases (George and Bennett, 2005, p. 22). While the methods used limit the generalizability of the findings and the causal weight that may be attributed to the selected independent variables, the conjectural and historical nature of this thesis makes it an appropriate choice for case study research (Gerring, 2007, p. 39). Further, the similarity between the historical patterns of forest governance institutions in Québec and those of its sister provinces (Howlett and Rayner,

1995, 2001) suggest that the approach taken here bears relevance to the broader Canadian context. Even so, several strategies were used to increase the reliability of the study design.

To strengthen the validity of hypothesized causal relationships, a comparative historical and within-case analytical approach was used to safeguard against spurious correlations and increase inferential leverage. Comparative historical analysis draws on a rich tradition of inquiry that has dominated the social sciences for centuries (Mahoney and Rueschemeyer, 2003, p. 3). This mode of investigation is marked by an intellectual commitment to using historically grounded explanations to address questions that have substantively or normatively broad implications (*Ibid.*, p. 7). Specifically, comparative historical analysis implies the study of causal relationships in processes that unfold over time, along with the “use of systematic and contextualized comparisons” (*Ibid.*, pp. 10-13). While the extent to which study results hold across time and differing sociocultural contexts necessarily depends on the safeguards that are used, Mahoney and Rueschemeyer (2003, p. 9) argue that such methods “can [nevertheless] yield more meaningful advice concerning contemporary choices and possibilities than studies that aim for universal truths but cannot grasp critical historical details.” This is a particularly important observation given that the object of this study lies in understanding the influence of constitutional choice rules and reiterated problem-solving efforts on the evolution of forest governance institutions and the resulting social-ecological outcomes. Since Québec shares the same constitutional foundations as its sister provinces – the independent variable of interest in this thesis, the hypothesized causal influence of constitutional rules in the case of Québec is likely to have had a similar bearing on the development and use of natural resources elsewhere in the country.

Historical comparisons of the five selected case study periods were strengthened using within-case analytical methods that included process tracing and the congruence method. Process tracing involves the identification of “intervening causal process[es] – the causal chain and causal mechanism – between an independent variable (or variables) and the outcome of the dependent variable” (George and Bennett, 2005, p. 206). Movement back and forth between theory and empirical evidence is essential for testing and refining theoretical predictions in light of comparative insights (Sewell, 2005). As such, process tracing derives

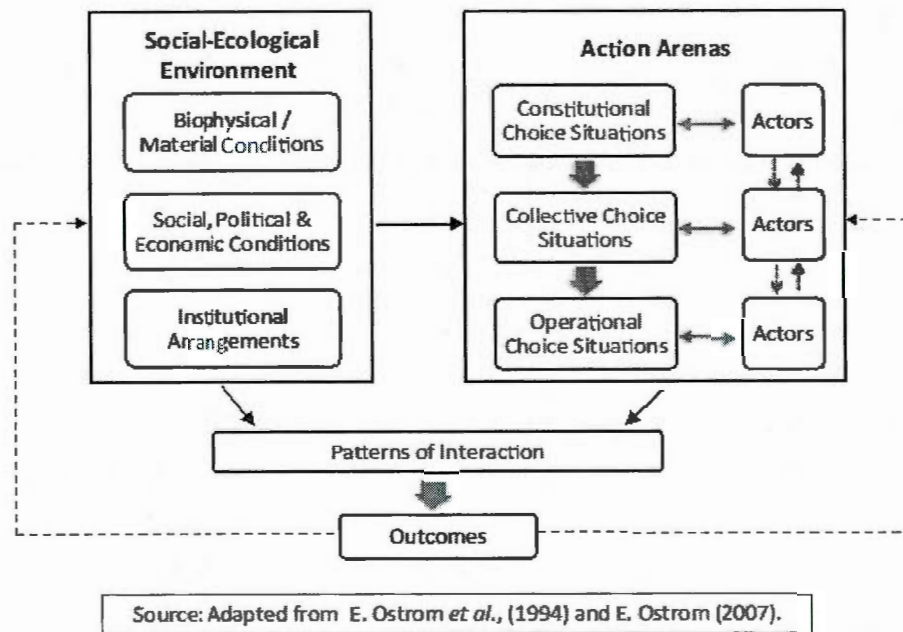
its power of inference from the continuous thread of historical events (i.e., causal process observations) that can be explained by reference to theory (George and Bennett, 2005, pp. 21 & 30). By carefully matching available evidence to specific conjectures, process tracing provides a methodological foundation for “uncovering traces of a hypothesized causal mechanism within the context of a historical case” (Bennett and Elman, 2006a, p. 262; Collier *et al.*, 2004, pp. 252-255; Gerring, 2007, p. 44). When applied to the study of institutional change and collective action more broadly, process tracing allows the researcher to develop clearer and more complex accounts of the context within which action unfolds, and the specific causal mechanisms that affect the creation, reproduction, and change of institutions over time (Bennett and Elman, 2006a, p. 262). Hence, in spite of the fact that small “n” case study research does not yield the necessary confidence to generalize theoretical or hypothetical conjectures, the repeated observations that can be leveraged through within-case analysis and small “n” case comparisons can be used to aggregate multiple sources of evidence, and develop theoretical explanations that are consistent with historically situated phenomena (Bennett and Elman, 2006b, p. 459; Gerring, 2007, p. 172; Mahoney, 2003, pp. 360-367). As the plausibility of the underlying theoretical framework increases, so does the likelihood that case study observations may be generalized to a larger class of phenomena (Gerring, 2004, p. 341). Following Mahoney (2010), confidence in the causal relationship that lie between independent (i.e., constitutional choice rules) and dependent variables (i.e., social-ecological outcomes) was strengthened by the use of three different causal process observations: (i) observational data pointing to the influence of the independent variable over the outcome of interest; (ii) evidence of intervening events or mechanisms (a causal chain) that are consistent with theoretical predictions; and (iii) the presence of auxiliary outcomes or parallel effects that could only result from a positive relationship with the tentative hypothesis (see also George and Bennett, 2005, pp. 185-192).

1.5.1 Study Framework

To strengthen the rigor of analysis and develop causal process observations that can be tested and further elaborated upon in subsequent research, this study relied on the Institutional Analysis and Development (IAD) framework, developed by scholars associated with the Bloomington school of institutional analysis (Kiser and Ostrom, [1982] 2000; Oakerson, 1990; E. Ostrom, 1986, 2005b; E. Ostrom *et al.*, 1994). The IAD framework is

well suited for the study of collective action in various settings (Ostrom, 2005b) and common-pool resource systems more specifically (E. Ostrom, 2010a; Poteete *et al.*, 2010). Of special relevance to this study is the fact that the IAD allows for multiple levels of analysis. This enables researchers to peer into the nested structure of rules and disaggregate the hierarchical scaffold of institutional arrangements that ultimately impinge on operational decision-making situations. The IAD framework explicitly connects the micro-level processes (or operational choice situations) that directly affect the state of the world with the macro-level structures that are nested in collective-choice arenas and constitutional orders (McGinnis, 1999, p. 3). Recognition of the configural relationship of institutions and the complex web of interdependencies typical of most action situations is explicit. Since the performance of any given rule cannot be considered in isolation of the inter-institutional linkages that govern human interactions, the IAD reinforces the relationships that tie individual and aggregate behaviours to the institutional matrix within which actors operate, the attributes of their socio-economic and political setting, and the nature of the biophysical environment (including infrastructure and technologies) that jointly affect the incentives participants face (see figure 1.1 below).

Figure 1.1 The Institutional Analysis and Development Framework



Central to the IAD framework are the relationships that link individuals, occupying different positions, to actions or choices that cumulatively affect outcomes in the world. What is important to consider for the purpose of this thesis is that the relationship that links individuals to rules and outcomes is likewise a rule-dependent arrangement subject to deeper level constraints. Arenas wherein actors interact and make decisions are thus mediated by “authority relationships that specify who decides what in relation to whom” (Oakerson, 1990, p. 9). While actors involved in any one level of interaction may also occupy positions in one or more action situation (see right-hand side of figure 1.1), each faces a unique set of incentives motivated by their own preferences (which may or may not be congruent with the social optima), the information they possess and the choice mechanisms or mental models they use for selecting among alternatives.

Reference to the temporal dimensions of social (Pierson, 2004; Sewell, 2005) and ecological (Gauthier *et al.*, 2009; Liu *et al.*, 2007) change are implicitly tied to the dotted feedback arrows that link outcomes to the greater social-ecological environment and the

arenas wherein actors interact, and make decisions that iteratively affect the choice sets of others. The theoretical framework that was used to explore the evolution of forest governance institutions in Québec is developed in Chapters II and III.

1.5.2 Research Design

In order to develop causal accounts of institutional change that are consistent with the historical contingency of selected case-study periods, the causal influence of temporal heterogeneity, and the multiple and mutable sources of causation in complex adaptive systems that preclude the existence of single explanatory devices or generalizable laws (Haydu, 1998, p. 356; Sewell, 2005, pp. 6-12; Steinmo, 2010, pp. 13-14), periodization was tied to recurrent dilemma situations that triggered significant political-economic events in the province's history. In other words, time periods were used as instances (i.e., cases) of ongoing problem-solving efforts wherein past events form a continuous thread of causal relationships that iteratively inform and influence outcomes in future settings (Haydu, 1998). As such, temporal casing (or event sequencing) is consistent with process tracing, evolutionary theory, and the IAD framework. By providing an analytical structure for understanding how actors in distinct historical periods "work with problems, tools, and options inherited from the past" (*Ibid.*, p. 356) and make decisions that ultimately affect the situations that others will face at later periods (i.e., engage one another in *action situations*), event sequencing supports the development of causal explanations that explicitly recognize the influence of structure and the agency of social actors as "historical pivots that link *cases* of problem solving" situations together (*Ibid.*, p. 367). Though it admits the potential for path dependent causal relationships such as positive feedbacks, increasing returns and lock-in effects, event sequencing does not assume that past solutions or choices necessarily "foreclose future options...They may also lead to and shape the switch points confronted by later generations, drawing the fault lines along which later crises will erupt and create options for new solutions" (*Ibid.*, p. 357). Hence, this research design adheres to the following set of evolutionary principles: 1) history is not a linear process, meaning that when and where something occurs can fundamentally shape what occurs; 2) chance or contingency matters; 3) outcomes are often the product of emergent processes and therefore cannot always be simply reduced to, and understood in terms of, their constituent parts; and 4) interdependent and

iterative relationships between important causal variables affect the way institutions evolve in complex adaptive systems (Steinmo, 2010, pp. 13-14).

1.5.2.1 Unit of Analysis

As operationalized through the IAD framework, “whenever two or more individuals are faced with a set of potential actions that can jointly affect outcomes, these individuals are said to be in an action situation,” and together, they form the primary unit of institutional analysis (Ostrom, 2005b, p. 32). Correspondingly, the principle species of observations that forms the basis of analysis (see Gerring, 2007, p. 339) in this thesis is the *collective choice situation* associated with the arena for public decision-making (see right-hand quadrant of Figure 1.1 above). More specifically, the primary unit of analysis is *government* itself and what government means or implies in any given context can only be understood in light of the constitutional foundations upon which it rests. In other words, government is a political institution, grounded in the constitutional principles and conventions that define the scope and limitations of its powers, and the means used to exercise such political authority (Gerring and Thacker, 2008). Government, therefore, is not a generic category of analysis. It identifies a specific regime structure, fashioned by historical precedents and the governing arrangements by which political authority is convened and exercised. Hence, understanding the boundaries of the regime that forms the focal point of analysis, and the constitutional properties that underlie such a political institution is crucial for the development of causal arguments that invoke constitutional choice rules as a determining variable in social-ecological outcomes.

Within this thesis, government is used in reference to the Canadian political institutions that have emerged following the establishment of British rule in 1763. Within the Canadian context therefore, government has very specific meaning. To begin with, Canada is first, and foremost, a constitutional democracy, governed by the evolving principles of the British parliamentary system and the Westminster model of government, which implies “cabinet government” (Johari, 2006, pp. 212-215; Mallory, [1984] 2011, pp. 13-18). Several distinctive features characterise the concept of government by cabinet in the Canadian context. First, as a federated structure with two distinct levels of government, provincial and federal governments enjoy clearly differentiated (albeit sometimes contested) legislative

powers but are themselves structured according to the same constitutional principles. Second, cabinet government implies executive government, wherein the Prime Minister or Premier and appointed members of Cabinet are selected from the body of elected representatives, which by convention implies that they hold the confidence of the legislature. Since government owes its existence to the support of the majority of the legislature, it is likewise considered responsible to Parliament, and through it, the electorate. Third, Cabinet is the central governing body of the Canadian parliamentary system. Like its British counterpart, it is *the core* element of provincial and federal politics, and in a system where the legislative and executive functions are essentially fused (Dicey, [1915] 1982), Cabinet constitutes “the supreme directing authority” of public affairs within the constitutionally defined jurisdictional boundaries of provincial and federal legislatures (Jennings, 1959, p. 1). As such, Cabinet has sole custody over the setting of government priorities and public policies, the allocation of public resources, the design of decision-making processes, the management of departments and agencies (i.e., ministries), and the flow of information, to name but a few (see Chapter III). And since ministries or “departments are mandated to administer and achieve the political and policy purposes in their respective domains of public affairs” (Tardi, 2010, p. 27), cabinet ministers ultimately hold responsibility for the departments and agencies under their authority. In other words, because political and policy directives are determined by Cabinet, not by Parliament, the actions and decisions of public administrators are considered to be those of the government itself.

Finally, power within Cabinet ultimately rests with the Premier (provinces) or Prime Minister (Canada). He or she alone holds a monopoly over the allocation of patronage; determines the design of government (i.e., the structure and composition of Cabinet); assigns ministerial portfolios; controls the government’s agenda; decides the organization of Cabinet committees; exerts control over the civil service through the appointment of deputy ministers; and maintains overall control over the disclosure of information and consequently, the public image of government itself (see Chapter III). In short, the locus of control in Canadian provincial politics resides with the Premier and Cabinet (Dunn, 2006), and “government” implies Cabinet government, or in broader and more encompassing terms, the executive government. As applied within their historically appropriate context, the following terms will

be used interchangeably in this thesis to mean *government*: Governor in council, Executive, Executive Council, Lieutenant-Governor in council, Cabinet, and Council of ministers.¹⁹

1.5.2.2 Case Selection and Periodization

Following Haydu (1998, p. 354) case periodization was primarily determined by the “contrasting solutions” to recurrent problems in the administration of public forests and the differing sets of constitutional arrangements under which such solutions were developed. As such, the study period was divided into five distinct cases, which collectively address the evolution of forest governance institutions in Québec from 1763 to 1986. The logic of periodization (see Table 1.1 below) was informed by the following considerations.

The year 1763 was selected as the point of entry for this thesis for several reasons. Specifically, it corresponds to the onset of the British regime in Québec, as formalized by the Treaty of Paris (February 1763), which ended the Seven Years War, and the Royal Proclamation of October 1763, which gave Québec its first constitutional framework. While large-scale extraction of forest resources in Québec did not begin until the Napoleonic wars of 1793 to 1810, one needs to revert back to the reception of English law, applicable to discovered and conquered territories, in order to understand the nature and consequences of the Crown’s unalienable rights to all natural resources. As specified in Blackstone’s *Commentaries on the Laws of England* (Book 1, Sect. IV, pp. 107-108), British constitutional conventions provided that: “Premier ministre”

“[I]n conquered or ceded countries, that have already laws of their own, the king may indeed alter and change those laws; but, till he does actually change them, the ancient laws of the country remain, unless such as are against the law of God.”

In other words, all laws, rules, prerogatives, and entitlements derived from ancient customs and held in right of a foreign sovereign were, by conquest or cession, formally transferred to the British Crown and made legal until otherwise changed or amended by royal proclamation or acts of the British Parliament. Hence, the Royal Domain (i.e., “*le Domaine Royal*”) that was claimed by and for the French monarch prior to the Conquest of 1759

¹⁹ In French, government is alternatively referred to as: “Conseil des ministres”, “l’Exécutif,” and “Cabinet du premier ministre.” And “premier ministre” implies “Premier.”

became the property of the British Crown²⁰ and all previously held entitlements applicable to the said land were likewise vested in the Crown, for it to dispose of or amend at its pleasure. Consequently, even though the regulation of forest resource use in Québec was initiated nearly a century earlier during the French regime,²¹ the key to understanding the origins and subsequent development of public forest institutions in the province, from the early 1800s to this very date, lies with the beginning of the English colonial period in 1763.

With respect to the selected end-date of 1986, it corresponds to the adoption of the Forest Act that largely governed public forest resource use until the first decade of the 21st century. Since the 1986 reforms are widely regarded as the source of the crisis that continues to afflict Québec's forest industry at the onset of 2013, and the analytical interests of this thesis resides in understanding the long term institutional dynamics that led to the current predicament, it made sense, from an analytical perspective, to end this investigation where current problems are believed to originate. The selected cases (Table 1.1) are detailed below.

Table 1.1 Selected cases, events and constitutional arrangements (i.e., regime)

| DATES | EVENTS | REGIME |
|-----------|---|---------------------------------|
| 1763-1839 | <ul style="list-style-type: none"> - Constitutional struggle for responsible government - Forests – revenue beyond the reach of the Legislative Assembly - Crown's unalienable hereditary and customary rights | Representative (i.e., colonial) |
| 1840-1866 | <ul style="list-style-type: none"> - Union and the development of responsible government - Forests – revenue and incentive for settlement - Competing land-use claims & mixed political interests | Union (Upper & Lower Canada) |
| 1867-1907 | <ul style="list-style-type: none"> - Provincial government & legislative autonomy - Forests – revenue, colonization, economic development - Competing land-use claims & emergent industrialism | Provincial (federated state) |
| 1908-1950 | <ul style="list-style-type: none"> - Forests – primary engine of economic development - Failure of conservation & adoption of managed MSY - Industrialisation, positive feedbacks & rapid expansion | Ibid. |
| 1960-1986 | <ul style="list-style-type: none"> - Legacy of appropriation & provisioning problems - Market/Gov. failures & limits of concessionary system - Increase access & use to stimulate growth & development | Ibid. |

²⁰ Excluded from this transfer of property were those portions of the territory that had been ceded and placed under the feudal land-hold of the "seigneurial system."

²¹ While the earliest recorded efforts to both exploit and protect forest resources in Québec can be traced as far back as 1672 (see Chapter IV), the use of forest resources for construction, ship building, or other commercial purposes remained marginal throughout the French regime, owing to the high costs of trans-Atlantic shipping and the over-riding interests of the fur trade.

The first case (1763 to 1839) focuses analytical attention on the constitutional struggle that emerged between the elected Legislative Assembly of Lower Canada (i.e., Québec) and the appointed colonial executive for the establishment of responsible government, the control of public spending, and the use and management of crown resources (i.e., public lands and timber). How the colonial government proceeded to solve these problems, and in doing so, established the institutional precedents that would ultimately affect the use of forest resources to this very day provides the main focus of this chapter. The years 1763 to 1839 broadly corresponds to the British colonial period, during which Québec (renamed Lower Canada in 1791) was administered by a representative government appointed by the British Parliament, and directed by the British Colonial Office in London.

The second case (1840-1866) follows the events that unfolded after the breakdown of the Constitution Act of 1791, from the unification of Upper and Lower Canada in 1840 to the confederation debates of 1866 that led to British North American Act a year later. After more than a decade of rampant cronyism in the administration of colonial affairs leading to unproductive growth in the Lower province and an unbearable debt load in the Upper province, fresh supplies of revenue were needed to balance the budget of the unified government, and again, salvation was to be found in the sale of public forests. How the need for revenue and the rise of democratic institutions (i.e., responsible government) evolved in a context of competing land-use claims and growing environmental awareness provides the overarching narrative of this chapter. The end date of 1866 corresponds to the breakdown of the unified regime and the need to reconfigure the very structure of British North America.

The third case (1867-1909) discusses the constitutional and empirical implications of the Constitution Act of 1867 up to the turn of 20th century – a period that broadly corresponds to a pre-industrial phase in the use of public forests and a pre-modern approach to the administration of public affairs overall. The chapter considers how the newly established province of Québec dealt with its own revenue-generating needs following entry into the Canadian confederacy. How government attempted to increase its share of revenue, deal with an increasingly organized colonization movement, growing evidence of overexploitation, and a rapidly accumulating debt-load forms the centrepiece of discussion. The chapter ends with the rise of the pulp and paper industry and the consecration of “resource conservation” as the

primary tool to limit the expansion of colonization and support the emerging imperatives of industrialisation during the first decade of the 20th century.

The fourth case (1910-1950) addresses the issues and concerns that emerged in response to the intensification of forest resource exploitation, following the end of the First World War. From the advent of industrialisation to the development of state bureaucracy, the chapter traces the professionalization of forest resource management, the rise of government interventionism, and the adoption of the maximum sustainable yield paradigm to support the growing needs of industry. The end date of the chapter corresponds to the renewed vigour of the post-war economic boom, following more than a decade of criticism and warnings that the system as whole was unsustainable.

Finally, the last case (1960-1986) provides a brief account of the results of more than a century of unconstrained resource exploitation and the recurrent 20th century dilemma of finding and tapping into increasingly remote and less productive pools of resources to sustain the needs of a largely unsustainable forest sector. The chapter begins in 1960 with a historic change of government and the emergence of new political ideals, and follows the ongoing efforts of public authorities to resolve the anomalies created by the conspicuous failures of the past and the relentless pursuit of growth. The chapter ends with an overview of the factors that led to the 1986 reform of the Forest Act and the assumptions underlying its purported theory of change.

1.5.2.3 Research Scope and Limitations

The focus of this thesis lies explicitly on the role of government in the administration of public forests and its influence on the evolution of forest governance institutions. As such, the factors that are considered are those that affected public decision making processes, as reported or recounted in the selected primary sources of evidence. The absence of discussion on such important parallel events as the struggle for native land rights and the displacement of native inhabitants to serve the interests of European settlers was not deliberate. Rather, it was the paucity of such preoccupations in the primary sources of data (e.g., official correspondences and government reports) that led to their absence from the ensuing analyses. In fact, evidence (or lack thereof) suggests that native interests have more or less been written

out of history, as if, one might conclude, the constitutional and territorial claims of the First Nations people never really existed.

Likewise, the social consequences of forest resource use, including the treatment of forest workers (wages and conditions), and the impact of forestry operations upon the health and wellbeing of forest-dependent communities are only indirectly addressed. Since these matters have been authoritatively addressed elsewhere (e.g., Côté, 1999; Hardy, 2011; Hughson and Bond, 1965; Lee, 2006; Legendre, 2005; Séguin, 1980), social considerations in this thesis have essentially been limited to issues that had a direct bearing on the course of forest resource use and the evolution of forest governance institutions, such as the competing land use claims of settlers and the employment imperative associated with regional development.

1.5.3 Data Collection and Analysis

This study is based on primary and secondary sources of data gathered through archival research. Primary sources of evidence principally included: government records, journals of the legislative assemblies and parliamentary debates, sessional papers, and legal notices; annual reports from appointed officials and/or departments; transcripts from relevant public and parliamentary committees and commissions; the proceedings of national and international forestry conferences; and period observations, commentaries or analyses drawn from official correspondences, newspaper articles, pamphlets, public presentations and other published materials. Secondary sources include analytical contributions of both recent and distant scholarship and commentaries drawn from period publications and newsprint. Secondary sources were primarily used to validate inferences, the interpretation of historical texts, and the significance of primary sources.

The meaning and evidentiary worth of archival resources were assessed through careful consideration of documentary authorship, purpose, and context, or as George and Bennett put it: “*who spoke [or wrote] to whom, for what purpose and under what circumstances*” (2005, pp. 99-100, italics in original). As such, inferences were leveraged on the bases of how actors perceived their experience and their situation. While careful not to overburden the text with endless series of quotations, sufficient reference to original sources

of data is provided in order to allow those less familiar with the selected time periods to critically judge the value and relevance selected archival data. The triangulation of multiple sources of data was used to further analytical rigour and control for interpretive biases. Consistency in the views expressed by historical actors – both over time and across geographic space – provides confidence in the reliability of selected data sources and the inferences that can be leveraged from these. While active citation (Moravcsik, 2010) (i.e., web links to online resources) was not employed in strict sense, in order to limit the length of footnotes, reference numbers from the Canadian Institute for Historical Microreproductions (CIHM) and complete referencing information were provided to ensure the traceability and reproducibility of the study results.

Using process tracing as the principal method of analysis, sources of data were collated, coded, and analysed iteratively over a four-year timeframe. To keep track of relevant data, the Institutional Analysis and Development framework (see Section 1.4.3 below) was used to code and classify rule-related changes (E. Ostrom and Basurto, 2011), and the factors affected decision-making processes in iterative problem-solving situations. In addition to the identification, validation and testing of key causal mechanisms, the approach used provided the necessary distance to reflect on and refine the theoretical propositions that could best explain causal process observations. The search for a proximate fit between empirical evidence and theoretical predictions was used to sharpen inquiry, refine theoretical assumptions, and dig deeper to identify the underlying causal processes that best explained available evidence and the outcome of interest in this study. As such, the focus on constitutional choice, as the primary independent variable of interest did not emerge at the proposal writing stage of this thesis, but after several years of movement back and forth between empirical evidence and theory. In other words, the constitutional level of analysis proposed herein was not a theoretical proposition that warranted further investigation, it is the investigation that led to the warrantability of the proposed theoretical solution.

1.6 Statement of Argument

This thesis argues that the evolution of forest governance institutions and the resulting struggle to develop more sustainable patterns of forest resource use in Québec are fundamentally tied to the constitutional choices that have concentrated the instrumentalities

of collective action in the hands of the provincial government. Put differently, constitutional rules applicable to the use and management of public forests in the province ultimately affected outcomes in the world by exercising a determining effect on the habits, values, ideas and social institutions (i.e., variations) that were selected, replicated and enforced (i.e., inherited) over time. In short, who makes choices and how choices are made matter. Though necessary for explaining the evolution of forest governance institutions in Québec, this thesis makes it clear that the sources of selection pressure were varied, and that factors such as the nature of the goods involved, the relative abundance of forests, high enforcement costs, market pressure, social demands and emergent social, political, economic and scientific paradigms all weighed heavily in the use and management of public forests over time. However, how such problems were dealt with, what ideas, values or interests were used to inform decisions at the collective and operational choice levels are all symptomatic of the deeper-level constitutional structures that provided the primary selection mechanism for collective choices in the province.

As in other Canadian jurisdictions, the power to use and dispose of natural resources in Québec is derived from a residual prerogative of the Crown that was vested in the executive government, subject to the legislative action of the Assembly (i.e., parliament – see Chapters IV to VI). However, in a system where the legislative and executive functions are essentially fused, and parliament exercises supreme authority over the instruments of coercion, the ability of the political sovereign (i.e., the electoral body and parliament more specifically) to constrain or even direct the actions of the legal sovereign (i.e., government) has arguably been limited during the province's history (Chapters III to VII). At best, the concentration of rulership prerogatives fostered the belief that public officials and their advisors could solve the myriad problems and dilemmas resource users faced by devising broad regulatory instruments (Chapters V to VIII). At worse, it has provided opportunities and indeed incentives to direct the course of political-economic affairs in favour of more narrowly construed interests, whether motivated by the concerns of government itself or the demands of special interests (Chapters IV to VIII).

Empirical evidence drawn from nearly two centuries of commercial exploitation suggests that the evolution of forest governance institutions seldom produced noticeable

improvements in resource use outcomes. In spite of repeated calls for change, and a shared awareness of the externalities produced by the system in use, the dominant patterns of forest resource exploitation have remained remarkably consistent over time. From the progressive depletion of the highest to the least valued stocks, and from localized patterns of overexploitation near the settlement frontier to the extensive exploitation of the furthest regions of the boreal north, the difference between the extractive methods of the 19th century and the industrialized exploitation of the late 20th century essentially rests in the ever increasing scale and intensity of forest operations. Knowledge, experience, improved mental models or concern for the welfare of future generations were never used to improve social-ecological outcomes in any significant way.

Hence, in the absence of effective constitutional safeguards, including clearly defined normative boundaries, proportional representation, more inclusive forms of deliberation, and/or increased local-level authority in the use and management of forest resources (see Chapter III and Conclusion), those who hold collective-choice rights over vast reserves of common-pool resources will likely face strong incentives to use such resources for their own benefit. Further, when no one is sure to capture potential returns on investments, relative to the supply of appropriation and provisioning costs; when decision-makers do not bear the consequences of their decisions; when the illusion of plenty provides a pareto-improving rationality to social and environmental costs; or when political choices can be couched in the certitude of scientific knowledge, resource users and political decision-makers will be inclined to shirk their responsibilities and adopt strategies that tend to maximize short term gains, rather than invest in long term efforts that stand to benefit future generations. Without effectual constraints on the actions of government and related changes to the terms and conditions of collective action, efforts to improve the sustainability of forest resource use in Québec will likely remain a struggle. In this sense, the development of a robust theory of institutional change that can explain the success or failure of collective action requires a corresponding commitment towards the development of a theory of constitutional choice (Chapter II and III) that can help explain the selection and replication of institutions in political-economic structures over time.

Finally, inquiry at the constitutional level of analysis embodies theoretical and empirical foundations that are ontologically and epistemologically different from other forms of analysis. Following the work of Vincent Ostrom and James Buchanan, distinctions between the fundamental nature of social order, and the rules established within the confines of an existing order, imply the necessity to distinguish between empirical (what is) and normative (what ought) forms of inquiry. Put differently, efforts to understand the structure of the situation that affects behaviours and outcomes in the real world (i.e., empirical inquiry) must be complemented by normative forms of inquiry to understand the habits, values, norms and ideas that give meaning to human action and the reasons that compel individuals to willingly constrain their own freedom in order to achieve collectively valued ends. Arguably, social dilemmas at the constitutional level and the problematic nature of rule-ordered relationships underlie the vast majority of social-ecological problems in the world today. Solving the massive collective action problems associated with poverty, inequality, pollution, and environmental degradation writ large will not be achieved in the absence of more fundamental changes in the constitution of rule-ordered relationships that determine who makes choices in society, how these choices are made, and for whose benefit they are made. This thesis underscores the need to considerably expand analytical inquiry at the constitutional level of analysis.

1.7 Thesis Contributions

This thesis makes distinct contributions to six different bodies of literature. First, this thesis contributes to existing theories of institutional change applicable to the study of social-ecological systems by shedding light on the complementary nature of the different strands of neo-institutional scholarship. The thesis argues that achieving empirical consistency and explanatory depth, relative to processes of institutional change, is not a zero-sum game. Instead of trying to substantiate the relative importance of one strand of theory over another, evidence suggests the need for a meta-theoretical approach that can reconcile the ontological differences and reinforce the epistemological similarities of social, historical, and rational-choice institutionalism. Building on recent contributions from the application of Darwinian evolutionary theory to the study of institutional change (Hodgson and Knudsen, 2006; Lewis and Steinmo, 2012), Chapter II points to the need to better distinguish the different worlds of

action (Kiser and Ostrom, 1982), and in particular, the rules that structure social order in human societies. In short, whether and how institutions change cannot be fully appreciated without a comparable commitment to understand how the rules of social order ultimately affect the selection and replication of institutions in a given context.

Second, scholarship relevant to the study of common-pool resources (CPR) and human-environment interactions have largely focused analytical attention on operational and collective-choice situations at the expense of more in-depth analyses of the underlying rules of the game. The methodological tendency to assume a fixed situation for the purpose of analysis and the related reluctance to investigate second order dilemmas (i.e., institutional change) (Ostrom and Walker ([1997] 1999, p. 435) have resulted in a limited appreciation of the constitutional perspective. This thesis seeks to address this weakness in the relevant literature by overtly tracing the development of Québec's forest governance institutions and related constitutional choice rules from their inception to their modern day situational outcomes.

Third, this thesis contributes to the emerging theory of collective action by calling attention to the temporal contingency of its underlying assumptions and the limiting conditionality of constitutional choice rules. Following the works of Vincent Ostrom and James Buchanan, and more recent contributions from evolutionary theorists such as Geoffrey Hodgson and Sven Steinmo (see Chapter II), the thesis argues that the long-term performance of any social-ecological system is invariably tied to the constitutional arrangements that determine who decides what, when and how. In other words, constitutional choice rules affect social-ecological outcomes by affecting the institutional variations that may be selected and replicated on an iterative basis. Whether communities are able to adapt to their changing circumstances largely depends on the nature of the underlying social order and the extent to which such systems are inclusive of the interests of others and responsive to the time and place exigencies of social-ecological change, that is, whether or not they support institutional diversity.

Fourth, historical analyses of social-ecological systems are rare and our understanding of how common-pool resource institutions evolve over time and why are likewise limited (E.

Ostrom, 2008a, p. 48; E. Ostrom and Walker, [1997] 2000, p. 435; Poteete *et al.*, 2010, p. 244; Stern *et al.*, 2002, p. 477). In fact, most of what we know about sustainable resource governance stems from the use of static analytical tools applied to the study of relatively small common property resource systems (McGinnis and Ostrom, 2008; E. Ostrom, 2008a). While ideal for determining the effects of fixed operational and collective-choice rules, such methods are ill suited for assessing the performance of constitutional choice rules. Whether and how constitutional choice rules affect the ability of a polity to solve problems and dilemmas requires a long-term perspective. As Buchanan points out, constitutional arrangements should not be evaluated “in terms of [their] results in a particularized choice situation, but in terms of [their] results over a whole sequence of *plays*” ([1987] 2001b, p. 72, emphasis in original). Greater leverage can be gained if one assumes a critical stance towards constitutional rules and gives analytical attention to the patterns of results that tend to emerge from such systems over time (Buchanan, [1981] 2001, p. 49). In keeping with Tilly’s (2006, p. 433) assertion that “every significant political phenomenon lives in history and requires historically grounded analysis for its explanation” (see also North, 1990, p. 100; 2005, p. 51), this thesis follows the tradition of inquiry set forth by North (1981, 1990) and others (Bates *et al.*, 1998; Eggertsson, 2005; Greif, 2006; North and Thomas, 1973; North and Weingast, 1989) to address existing shortfalls in the literature on natural resource governance. This thesis contributes to scholarship on common-pool resources by using comparative historical research methods to assess how the evolution of constitutional and collective choice rules in Québec structured the long-run performance of forest resource governance in the province.

Fifth, this thesis contributes to the existing literature on Canadian forest policy in a number of ways. By simply considering the relationship between rules and resource use outcomes, the thesis breaks with most if not all of the methods that have so far been applied to the study of forest resource governance in Québec and elsewhere in Canada (see Section 1.1.1 above). The thesis argues that institutional analysis is an appropriate method of inquiry for developing testable propositions about interactions between actors, rules, and resources, and the outcomes that are jointly produced. In doing so, it rejects the prescriptive underpinnings of the staples theory and the rudimentary assumptions of policy analysis to emphasize the critical roles of structure and agency in the development of the Canadian

constitutional experiment and provincial forest governance institutions. By grounding inquiry on an extensive theoretical framework, this thesis extends the analytical leverage of past historical contributions by defining and empirically tracing the causal influence of a hypothesized independent variable (i.e., constitutional choice rules) on the social and ecological outcomes of the system of interest. The approach used lies in contrast with the descriptive preoccupation of “who gets what, when, and how” that has so far dominated social science research in Canadian forestry for more than half a century.

Finally, this thesis contributes to the existing literature on Canadian constitutional politics by focusing attention squarely on the arrangements that set the terms and conditions of natural resource governance in the Canadian provincial context. The thesis helps to substantiate the claims made by constitutional and political science scholars regarding the centralising nature of Canadian government structures, including the dominant role of the executive in deciding the fate of public policy (Chapter III). It supports Mallory’s ([1974] 2011, [1984] 2011) claim that under majoritarian rule, responsible government is largely meaningless in Canada’s parliamentary system. The analysis presented herein suggests the existence of causal relationship between the evolution of natural resource use, Canada’s political economic structure, and the development of the country’s constitutional choice rules pertaining to the distribution of legislative authority and the concentration of decision-making powers in the hands of cabinet governments.

1.8 Thesis Structure

This thesis is organized as follows. Part I presents the theoretical underpinnings to this research in two distinct chapters (II and III). Part II deals with the origins of forest governance institutions within the Canadian context and their relationship to the development of constitutional choice rules prior to Confederation (i.e., Chapters IV and V). Part III, begins by tracing the longer-term impact of Québec’s constitutional heritage in two closely related chapters. The first deals with the preindustrial period of 1867 to 1910, when forest operations were largely dominated by the sawn lumber industry and conservation ideals were gaining widespread acceptance. The second focuses attention on the developments that followed the spread of industrialization as the main source of economic growth in the province (i.e., 1910 to 1950). Finally, the last section (Chapter VIII) presents a brief account of the important

institutional transformations that were initiated from 1960 to 1986, which are thought to have triggered the major forestry crisis that Québec has been grappling with for nearly a decade. The thesis ends with a review of the key lessons learned and discusses the plausibility of the hypothesized causal relationship between constitutional choices and the struggle to sustainably govern Québec's public forests. Emphasis is placed on the implications of thesis for the future of forest resource use in the province and the need for further scholarship on the constitutional level of analysis, both in Canada and elsewhere.

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PART I: THEORETICAL FRAMEWORK

CHAPTER II: ANALYZING INSTITUTIONAL CHANGE AT MULTIPLE LEVELS²²

2.1 Introduction

The quest to develop a robust theory of change is central to the purpose of the social sciences. Yet, in spite of the wealth of scholarship devoted to unravelling the workings of change, our ability to cogently predict and explicate processes and events that alter the conduct of human affairs remains a challenge (Mantzavinos *et al.*, 2004, p. 15). For scholars interested in the sustainable governance of forest resources, the importance of understanding the dynamics of change cannot be overemphasized. Despite evidence of a recent lull in the pace of global deforestation (FAO, 2010), the diversification of governance structures and broadening stakeholder involvement (Agrawal *et al.*, 2008), concern over the impact humans have on the world's forests, and the goods and services these provide continues to grow (e.g., Bromley, 2006; Butchart *et al.*, 2010; Foley *et al.*, 2005). Understandably, efforts to achieve sustainable outcomes in a rapidly changing world represent a constant struggle (Agrawal and Chhatre, 2006; Carpenter *et al.*, 2009; Dietz *et al.*, 2003). However, the tools we dispose of for analyzing complex social-ecological systems are most strongly adapted to the study of static situations (E. Ostrom, 2008). So although we may be able to better diagnose the performance of a given social-ecological system at a specific point in time (E. Ostrom, 2007), our ability to explain the evolution of such systems or bring about change in suboptimal situations remains wanting.

Yet, as scholarship on common-pool resources demonstrates (e.g., NRC, 2002; E. Ostrom, 1990; Poteete *et al.*, 2010), societies have, everywhere and throughout history, learned how to overcome collective action problems by adopting norms of behaviour and crafting rules that support the production of public goods and avoid the development of tragic

²² For an earlier version of this chapter, see Frechette, A and N. Lewis, (2011) Pushing the boundaries of conventional forest policy research: Analyzing institutional change at multiple levels. *Forest Policy and Economics*. 13: 582–589.

situations (E. Ostrom, 1998). But if humans are indeed able to cooperate, solve dilemmas and improve joint outcomes, then why have selection processes not favoured the development of more sustainable social units overall? What factors account for the increasing pace of environmental change? And more puzzling still, why environmentally harmful practices and inefficient resource regimes are allowed to persist over time in spite of repeated calls for change and early recognition, in some instances, that the outcomes produced by a given set of arrangements are known to be unsustainable?

As a land rich in natural resources, Canada offers many examples of this paradoxical relationship. So pervasive is the country's dependence on natural resources that it has conditioned much of its development and subsequent political-economic order (e.g., Hession *et al.*, 2005; Innis, [1930] 1999; Lower, 1938, 1973; Watkins, 1963). And historically, no sector has had as strong an influence over the country's economic development and sense of self-identity as forestry (Drushka, 2003). Forged through more than three centuries of close interaction, the conversion and exploitation of Canada's forests began in the east in response to settlement and European demand for ship masts, naval stores, and rough-hewn timber of various shapes and sizes (Albion, [1926] 1965; Lower, 1973). But with the shift from mercantilism to free trade in the mid nineteenth century, the Corn Laws and differential tariffs that had spurred the transatlantic timber trade were abolished and attention irrevocably shifted southwards to the United States and its rapidly expanding economy (Lower, 1938). By the turn of the twentieth century, the pines and hardwoods of the eastern provinces had all but been exhausted, the exploitation of western timber was well underway, and the new and less discriminating pulp and paper industry was poised to take advantage of the yet untapped boreal forest. Today, even though the productive capacity of Canada's forest industries is more varied than it ever was in the past, the sector remains heavily dependent upon foreign commodity markets and the economic health of key trading partners such as the United-States. So although forestry remains a leading contributor to Canada's economic development and positive trade balance, the recent collapse of the American housing market combined with falling demand for newsprint and increasing competition from alternate and often cheaper sources of supply have produced sluggish economic conditions with no immediate signs of relief.

In spite of such setbacks, Canada nevertheless continues to be ranked amongst the world's top producers of forest products (FAO, 2010) and throughout most of its history, the forest sector was consistently regarded as the country's largest industry and most important employer (Howlett, 2001b, p.3). Yet, much of this success rested on policy interventions and management strategies that were known to be inefficient if not outright unsustainable for almost as long a period of time (Frechette, 2009). The question this raises is why? What factors can possibly account for the persistence and maintenance of suboptimal resource governance institutions over time?

Over 90% of Canada's forests are held under public property arrangements, and in conformity with its constitutional foundations, the provinces hold jurisdictional authority over most of these areas (La Forest, 1969). While such powers were initially intended to serve the revenue generating needs of provincial governments and the subsequent provision of public goods (*Ibid.*), the granting of judicially acknowledged unitary control over any vast storehouse of natural resources inevitably creates opportunities and incentives for the pursuit of more narrowly construed interests (e.g., Ascher, 1999; Eggertsson, 2005). And in a context where provincial executives effectively dominate the policy-making process, including the raising of revenues and the allocation of resources (White, 2006, pp. 256-257), the result is a monocentric system of governance that can only be altered via periodic elections wherein every political formation faces strong incentives to maintain the privileges of the office they seek (Sproule-Jones, 1984). So although the allocation of resource rights (tenure arrangements) and the details of policy initiatives tend to differ from one province to the next, all have followed a similar path of experimentation (Howlett and Rayner, 1995). From a poorly regulated system of exploitation to revenue generation, conservation, intensive management (maximum sustainable yield) and the more recent shift towards ecosystem management, the policies that have so far been adopted by Canada's provinces and territories owe their uniformity to their common institutional heritage and the problems that flow therefrom (Howlett and Rayner, 2001). The dynamics of Canadian forest policy have thus tended to evolve in response to (i) the increasing needs of industry and consequent dissipation of resource rents; (ii) government attempts to fulfill regional development priorities and the corresponding push by labour to obtain more favourable conditions; (iii)

criticism of inefficient and unsustainable resource use by civil society and periodic parliamentary commissions; and (iv) the choice-limiting constraints of past policy decisions and sunk costs on the range of alternatives that could effectively be considered (Ibid; Frechette, 2009).

Using the evolution of forest resource management in Canada as a backdrop for further investigation, this chapter attempts to provide some generalizable answers to the complex issue of change in centrally governed natural resource systems. The focus here rests on the congruence of neo-institutional theories to existing empirical evidence in an effort to assess the explanatory leverage of the three most commonly discussed approaches to institutionalism (i.e., rational choice, historical and sociological institutionalism). So although the emphasis is first and foremost theoretical, the chapter has strong empirical implications for the analyses of change in resource-dependent political-economic structures. In a field dominated by authoritative scholarship on the distinctive attributes of the different strands of institutionalism (see Peters and Pierre, 2007), this chapter contributes to the existing literature in three important ways. First, it provides a critical assessment of institutional theories applicable to the complex problem of change (i.e., collective action) in common-pool resource dilemma situations, particularly as they apply to centralized public property regimes. Second, it suggests that the insights that can be drawn from the different institutional theories are not only complementary to each other, but are in fact mutually necessary for developing a robust theory of change in common-pool resource settings. Finally, it argues that in order to fully appreciate the nature of persistent dilemma situations, political scientists and resource economists need to push the boundaries of their conventional foci to consider the constitutional foundations of the collective action problems they face.

The structure of this chapter is as follows. After this introduction, basic conceptual elements will be discussed with a particular focus on the nature of change itself and its implications for analytical inquiry. This will be followed by a succinct review of neo-institutional contributions to the study of change. The chapter concludes with a call to move beyond the analytical limitations of the rules of the game. If one is interested in changing not only the rules, but also the very nature of the game, then one needs to pay attention to how the latter is structured. In other words, one needs to look at the constitutional rules that

condition the distribution of power and set the framework for collective action. Drawing on insights from recent scholarship on evolutionary theory, the findings of this chapter suggests that constitutional choices stand to affect the world of action – a polity’s adaptive response to changing social and environmental conditions – by exercising a decisive influence over the institutions that may ultimately be considered, selected, and replicated.

2.2 The Nature of Change

Change is used by social scientists to explain a wide range of phenomena. It can imply either (i) a shift in the ideas, values and beliefs that lend meaning to a social, political or economic order; (ii) changes in the strategies resource users adopt within a fixed set of rules; (iii) a modification of the institutional arrangements that condition action; or (iv) a functional redirection of policy or institutional regime to either correct an undesirable outcome or favour an alternative end. Within the context of this study, institutional change is used to signify any alteration to the rules that structure interactive situations. Such modifications may affect the set of participants within an action situation, the positions they occupy, the strategies or actions that are available to them, the control they exercise over outcomes, the information they possess or must provide, and the payoffs (costs or benefits) associated with allowable, required or forbidden actions (E. Ostrom, 1986, 1999). Understanding where rules come from and how they change is key to understanding the incentives actors’ face, the choices they make, and the consequences that follow. For “[o]ne cannot improve outcomes without knowing how the structure is itself produced” (E. Ostrom, 2005b, p. 18, following Eggertsson, 2005).

Institutions are widely regarded as enduring regularities of human interaction that are difficult to change (Mahoney and Thelen, 2009, p. 4). Once produced, rules may become entrenched for a number of reasons. First, institutional change is itself a rule-dependent process. As Ostrom (1990, p. 51) put it, “All rules are nested in another set of rules that define how the first set of rules can be changed”. What appropriators must, must not, or may do within an operational situation is defined by a hierarchical structure of rules wherein: (1) operational actions are structured by operational rules, (2) operational rules are determined within a collective-choice arena that is itself bounded by collective-choice rules, and (3) collective-choice rules are crafted within a constitutional setting regulated by constitutional-

level rules (E. Ostrom, 2005b, pp. 214-215). Efforts to change institutions at any one level are thus limited by the rules occurring at deeper levels and “changes in deeper-level rules usually are more difficult and more costly to accomplish” (Ostrom, 1990, p. 52).

Second, institutions within any political-economy are linked not only vertically, but also horizontally across existing sets of rules (Young, 2002) and other organized forms of behaviour (Crozier and Friedberg, 1977; North, 1990). Once established, institutions begin to affect the strategies, investment decisions and the policy choices actors make at multiple levels of interaction, leading to a complex web of inter-dependent arrangements and parametric variables that ultimately render change costly and difficult to achieve.

Third, if initial policy choices generate increasing returns to their proponents, a self-reinforcing pattern of policy decisions may emerge and affect the long-run path of future political and economic decisions (North, 1990, p. 95; Pierson, 2004). Obviously, the idea of path dependence does not preclude the possibility of change. Rather, it suggests that the payoffs associated with initial policy choices may generate dominant strategies that make the adoption of alternative pathways increasingly costly over time. And since institutions and the rules for making rules are prone to capture by those who hold power (Bromley, 2006; Knight, 1992; North, 1981, 1990, 1994; Powell and DiMaggio, 1991; Schmid, 2004), beneficiaries of the resulting payoff structure will likewise face strong incentives to perpetuate the existing framework, thus locking-in those arrangements that favour their interests (Pierson, 2004; Pierson and Skocpol, 2002).

Fourth, if a pool of resources is relatively abundant, appropriators will have little incentive to organize themselves to develop costly institutional arrangements (Ostrom, 2005b, p. 247; Poteete et al., 2010). When the costs of providing and enforcing resource institutions exceed the foreseeable gains of existing conditions, few will want to invest the time and effort required to establish new sets of rules. Obviously, this may change over time as resources become less plentiful and the benefits of maintenance activities become clearer.

Finally, given that institutions allow actors to reduce uncertainties, strengthen expectations and limit transaction costs (North, 1990; Ostrom, 1990), any change that threatens to deviate from the *status quo* – in a non-pareto fashion – runs the risk of attracting

substantial opposition. But even if actors agree on the necessity of change, they will still need to overcome the potential for second order dilemma situations (E. Ostrom, 1990; Yamagishi, 1988). As in the original problem situation, some actors may be compelled to shirk their responsibilities towards the provision, maintenance, and enforcement of institutional changes and thus limit the overall effectiveness of the required collective effort.

In spite of such overarching arguments, there is yet a strong contention amongst scholars of the commons that individuals acting in interdependent situations will generally feel compelled to improve their circumstances and “find better solutions to their problems *if they can*” (E. Ostrom, 1990, p. 34, emphasis added). But whether or not individuals “can” undertake such actions represents a critical issue. For although resource use outcomes tend to be context specific and cannot be attributed to any single set of variables (Agrawal, 2001; Agrawal and Chhatre, 2006; E. Ostrom, 2007), the ability of actors have to actually change the structure of their situation is conditioned by a much narrower range of elements (E. Ostrom, 1986, 1999; E. Ostrom *et al.*, 1994). As Ostrom and Walker ([1997] 2000, p. 435) summarize, actors facing common-pool resource dilemmas can extricate themselves from such collective action problems in one of two ways: 1) participants can agree on a joint strategy to reduce their aggregate impact within the constraints of a given set of operational rules; or 2) they may decide to shift levels of analysis (action) to a collective-choice or constitutional arena in order to change the constraints and opportunities associated with an operational or collective-choice situation (see also E. Ostrom, 2005b, pp. 62-64). In other words, the ability of resource users to collectively resolve appropriation and provisioning problems²³ is constrained by the structure of the situation they face (including both institutional and parametric variables), and ultimately, the rules for changing rules (E. Ostrom *et al.*, 1994, pp. 327-328). Much of the optimism underlying common-pool resource theory is based on the hypothesis that if appropriators share some basic endowments, are able to devise and enforce their own rules and adapt these to their changing circumstances, then they will also be more apt to improve joint outcomes (E. Ostrom, 2007; Poteete *et al.*, 2010). If, however, the situation is characterised by a centralized regime wherein users have fewer

²³ As detailed in E. Ostrom *et al.*, (1994, pp. 9-15), *appropriation problems* concern the flow and distribution of resource units over time, whereas *provisioning problems* concern the relationship between system productivity and the means used to maintain or enhance such capacities over time.

incentives to invest time and resources into solving potential resource problems, not to mention the absence of any legal authority to create new rules, how then do institutions evolve to reflect the changing conditions of the underlying social-ecological system? The remainder of this article attempts to provide some answers to this broad question.

2.3 Understanding Institutional Change

Efforts to understand and explain institutional change are central to theories of the policy process (Sabatier, 2007), and lie at the core of a growing body of research that includes contributions from all the different strands of institutionalism. This study attempts to derive theoretical insights from the three major traditions of institutionalism, namely sociological, rational choice and historical institutionalism (see Hall and Taylor, 1996). The enduring nature of institutions and the challenges associated with institutional change suggest that amendments to the rules and incentives that structure action situations are likely to proceed in an overwhelmingly incremental fashion (Mahoney and Thelen, 2009; North, 1994, p. 6). For the most part, theories of institutional change adhere to evolutionary patterns that are either gradual in nature (Currie *et al.*, 2010; Vanberg, 1992, 1994), or marked by punctuated-equilibria (Baumgartner and Jones, 2009) wherein long periods of relative stability (susceptible to incremental change) are interspersed by brief periods of major reform (Lewis and Steinmo, 2012; Mahoney and Thelen, 2009). Where the theories differ is in the causal elements that scholars use to explain policy outcomes.

2.3.1 Rational Choice Institutionalism

For rational-choice institutionalism, change during periods of relative stability tends to occur at the margins of existing rule structures (North, 1990, 1994). Changes are determined by the relative bargaining power of political and economic entrepreneurs, and their resulting efforts to increase economic efficiency, reduce transaction costs and achieve pareto improved outcomes (*Ibid*). The demand for efficiency-improving institutional change is believed to emerge from “the recognition that existing arrangements leave potential gains uncaptured” (Feeny, 1993, p. 176; North, 1990). Likewise, the demand for change can also emerge from entrepreneurs who apprehend probable losses from an existing or proposed institutional structure (North, 1994, p. 5). Change within the equilibrium model of new institutional

economics is closely aligned to the choice-theoretic approach of neoclassical economic theory, which considers the utility-maximizing choices that individuals or organizations make within a given set of constraints (*Ibid*).²⁴ In short, institutions create incentives and incentives condition the strategies actors adopt in interdependent or competitive situations. At the core of this model rests the notion that individual perceptions of costs and benefits are the sources of action that lead to institutional change (North, 1994; E. Ostrom, 2005b). If the transaction costs associated with change exceed the incentives to do so, policy actors are unlikely to invest the time and resources needed to change existing rules or create new ones (*Ibid*).

While endogenous sources of change may yield predictable outcomes in self-governed systems, they do not provide as strong a rationale for explaining sustainability enhancing change in a centrally governed public property regime. As such, choice-theoretic models may be consistent with demand-side changes for greater harvesting rights, the redistribution of potential gains or reductions in transaction costs, but they do not provide empirically grounded explanations for the adoption of rules that would reduce aggregate levels of consumption or impose user contributions towards the maintenance of a resource system. Further, in a dynamic environment where each actor seeks to maximize his or her preferences, public choice theory suggests that state representatives also play a strategic role in selecting and maintaining governance institutions that are consistent with their political economic interests, as opposed to the broader public interest (Buchanan and Tullock, 1962). As demonstrated by the relatively impermeable relationship that has evolved between Canadian governments and forest industries (Howlett and Rayner, 2001), the capability and willingness of political elites to provide new arrangements or change existing sets of rules may be limited by interests that are not necessarily consistent with the plausible social optima. For as Feeny (1993, pp. 184-187) points out, the supply of institutional change by the prevailing political-economic order ultimately depends on the “expected net benefits to powerful elite decision makers who exercise positions of dominance”. And given that resource regimes within developed political-economies are but part of a broader institutional matrix, the complementarities, economies of scope and network externalities that emerge from such institutional interdependencies can render change difficult if not impossible to

²⁴ As North emphasizes, utility maximization is simply a proxy for the pursuit of a functional objective, something that an individual, group or firm seeks to achieve (see North, 1994, p. 3).

achieve (Deeg, 2007; North, 1994; Young, 2002). The reason, North argues, is that once institutions are established, they “typically bias costs and benefits in favour of choices that are consistent with the existing framework. The larger the number of rule changes, *ceterus paribus*, the greater the number of losers and hence opposition” (1994, p. 6).

Yet, in spite of the numerous barriers to change and our assumption that appropriators within public-property resource regimes are unlikely to pressure governments to reduce their harvesting rights or organize themselves to solve resource maintenance problems for which they have no jurisdiction (see above), recent scholarship suggests that both endogenous and exogenous variables can play key roles in overcoming such gridlocks. Given the basic premise that institutions develop and persist when the benefits they produce exceed the costs associated with their creation and maintenance (North, 1990), it follows that any shift in the cost-benefit ratios actors use to determine their choice of strategies will likely result in the demand or supply of alternative arrangements. The exogenous variables²⁵ that stand to affect such a rule change calculus include the relative price structure of a given situation (North, 1994); changes in social, political or economic circumstances; the shifting attributes of communities wherein resource users operate; and changes in the productive attributes of resource systems (E. Ostrom, 2005b, 2007). Endogenous sources of change, on the other hand, tend to be associated with shifts in the ideological constructs actors use to make decisions, including the mental models actors use to cope with uncertainty, complexity (Denzau and North, 1994; Eggertsson, 2005; North, 1990), or socially warranted norms of behaviour (Ostrom, 2009). Values, ideas and beliefs within any polity are continually changing (Vanberg, 1992) and thus affect the behaviour of economic agents by altering preferences, the set of available choices, and ultimately, market conditions themselves (i.e., transaction costs and relative price changes initiated by the shifting values and demands of consumers) (Eggertsson, 2005; North, 1990; Schmid, 2004). Considered more broadly, endogenous sources of change are those that result from the development of informal rules or norms of behaviour that yield higher joint payoffs (Schmid, 2004). As the increasing relevance of certification schemes amply demonstrate (Agrawal *et al.*, 2008), if price signals

²⁵ Obviously, the extent to which such factors are considered exogenous to a situation is debatable. While the influence of the broader social, political and economic environment may be considered external for the purpose of analysis, changes in the attributes of communities or the productive potential of resource systems are more likely to result from the actions and decisions of actors themselves than the influence of external elements.

shift in favour of those who are able to certify the sustainable and socially responsible nature of their operations, it follows that to remain competitive and maintain market shares, it is the industry as whole that will be compelled to change (Auld *et al.*, 2008).

2.3.2 Historical Institutionalism

Historical institutionalism is grounded in the belief that history matters. As North states, “We cannot understand today’s choices ... without tracing the incremental evolution of institutions” (1990, p. 100). Similarly to rational-choice, historical institutionalists posit that change results from evolutionary processes marked by the accumulation of gradual change, which in time may produce substantial transformations (e.g., Pierson, 2004; Pierson and Skocpol, 2002; Streeck and Thelen, 2005). Emphasis is placed on the dynamic nature of collective choice arenas including the actors involved in subsequent rounds of decision-making, the evolving state of preferences and power dynamics, the information that is made available, and the values, ideas and interests that animate action (Pierson, 2004). Historical institutionalism argues the need to differentiate between the rules in use, at any particular moment in time, and how such rules are interpreted over time. As in rational choice institutionalism, change is considered more likely at the margins of existing institutional structures, where confrontations to novel situations create opportunities for alternative interpretations or applications of existing rules (North, 1990; Streeck and Thelen, 2005). However, change rarely strays far away from previously settled choices. As such, this approach gives a determining but non-deterministic role to institutional legacies and their effects on future policy-decision via the development of path dependencies (Pierson, 2000; 2004). By directing the investments actors make within a given political or economic context, rules may generate positive feedbacks that yield increasing returns for their proponents, reinforce selected pathways and limit the scope of allowable action in future settings (North, 1990; Pierson, 2004; Pierson and Skocpol, 2002; Thelen, 2003). Consequently, the political-economic structure that develops in response to a given institutional matrix will typically bias future policy decisions in favour of previously established arrangements (North, 1994, Thelen, 2003), thus limiting any change that could potentially alter the existing distribution of benefits or generate additional costs (North, 1990). Drawing on the work of Arthur (1994), historical institutionalists posit that investments made in light of a given social technology

may result in a “lock-in” effect that can perpetuate an established order regardless of its long-run efficiency or effectiveness. As such, technological developments and investment decisions both affect and are affected by the long run path of collective-choice rules (i.e., policies) (North, 1990; Pierson, 2000).

Historical theorists recognize exogenous shocks, and endogenous power and distributional motives as sources of institutional change (Mahoney and Thelen, 2009; Thelen, 2003). Similar to the work on advocacy coalitions (Sabatier and Jenkins-Smith, 1993; Sabatier and Weible, 2007), change is attributed to political manoeuvring amongst competing interest groups (Pierson, 2004) and shifts in the underlying balance of power (Mahoney and Thelen, 2009). Institutions are believed to evolve in response to the choices made at critical junctures or nodes of decision-making, the investment strategies actors adopt, and the long run path of positive feedbacks generated by this repeated sequence of events (Capoccia and Kelemen, 2007; Pierson, 2004). As a result, emphasis is placed on the emerging patterns of change (e.g., see Mahoney and Thelen, 2009; Pierson, 2004; Thelen, 2003), which help to explain how change proceeds but not why it necessarily occurs or fails to do so. As Thelen (2003, p. 37) concedes, “the factors or conditions that facilitate different modes of change” within historical institutionalism remain a “crucial frontier.” If historical analysis provides a useful vantage point for assessing the effects of positive returns and past policy decisions on institutional change and stability over time, it does so at the expense of a more thorough investigation of the capacity actors have to actually change the structure of their situation and solve the collective action problems they face. In other words, the micro-situational variables that affect individual behaviours and cooperative outcomes in collective action dilemmas are largely left unexamined (Poteete *et al.*, 2010, pp. 228-232; see also Powell and Colyvas, 2008).

Nevertheless, insights drawn from historical institutionalism are useful for appreciating the overriding effects of time on institutional development and the constraints that positive feedbacks exercise over future policy decisions. As contributions to the study of Canadian forest resource policy reveal (Howlett, 2001; e.g., Lower, 1938; Lower, 1973; Minville, 1944; Ross, 1995), the evolution of resource institutions within the various Canadian jurisdictions are broadly consistent with the analytical insights posited by historical

institutionalists. From the rents generated through the adoption of licensed tenure arrangements in the early 1800s to the expansion of industrial processing facilities throughout much of the 20th century, the cascading effects of past policy decisions have largely conditioned, if not constrained, the degree of freedom that could be exercised by successive governments (Howlett and Rayner, 2001). However, as I argue in the concluding thoughts to this chapter, the effects of positive returns on the change calculus of succeeding resource management authorities is but symptomatic of still deeper-level constraints. For although past policy decisions may generate positive returns that ostensibly limit the scope of allowable action in future settings, they do so because the constitutional rules for making rules consistently confront the same class of actors to similar sets of prerogatives and incentives, thus locking-in a situational structure that supports the interests of those who have access to power.

2.3.3 Sociological (Organisational) Institutionalism

In contrast to rational choice and historical institutionalism, sociological contributions to the study of institutions and their effects on human behaviour rely on a much broader interpretation of institutional concepts. In addition to commonly adopted definitions, which posit institutions as formal and informal rules, norms or shared strategies that individuals adopt in interdependent and repetitive situations (E. Ostrom, 2005b), sociological theorists place added emphasis on the normative and culturally significant attributes of rules as symbols, cognitive schemata, social scripts or moral templates (Jepperson, 1991) that frame meaning and guide human action (Hall and Taylor, 1996, p. 14). Institutions within a sociological context may thus be regarded as “structuring structures” or “systems of durable dispositions” (Bourdieu, 1977, p. 72) that provide the “enduring solidarities” through which individuals construct the world and give it meaning (Bourdieu, 2000, p. 142). Institutions frame not only the cultural mores of a given socio-organizational environment (i.e., the values and norms that are deemed appropriate), they also codify the cognitive or functional processes (i.e., mental models, habits, and routines) actors use to structure organized interactions (Campbell, 2004). In this sense, they offer “inter-subjectively understood schemas about [the] formal and informal rules of behaviour” that tell individuals what to do in various situations (Lewis and Steinmo, 2012, p. 333)

Sociological accounts of institutional change likewise rely on path dependence and incremental or punctuated models to explain change. What distinguishes it from competing strands of institutionalism is that change has neither an efficiency enhancing nor utility maximizing end (March and Olsen, 1989). In contrast to the “logic of instrumentality” associated with rational-choice approaches, sociological institutionalists posit that individuals and organizations are primarily motivated by a “logic of social appropriateness” whereby efforts to enhance social legitimacy serves as the primary motive for change (Campbell, 2004). In other words, individuals and organizations “seek to conform [themselves] to the culturally appropriate scripts, schema, and organizational models in their environment” (Campbell, 2004, p. 19), even though such changes may potentially be counterproductive to the achievement of the latter’s formal goals (Hall and Taylor, 1996). Institutional change is thus considered isomorphic in nature and regulated by processes of diffusion that Campbell (2004, p. 21) summarizes as follows: 1) mimetic processes whereby organizations in search of higher levels of performance adopt the practices of other, apparently successful, organizations; 2) normative processes in which organizational leaders are professionalized to share similar views on what constitutes appropriate organizational practices; and 3) coercive processes where organizations are pressured by their broader socio-organizational environment to adopt or conform themselves to certain institutionalized standards. Accordingly, institutions are believed to evolve in response to the diffusion of rules, norms, cultural values, and mental models across the permeable fabric of social-organizational structures, as well as the adaptive demands that dynamic social-ecological environments place upon organized action. Sociological institutionalism helps to understand how emergent ideas, values and beliefs gain currency within a given setting (or may be stifled by even more entrenched paradigms) and how these may eventually become replicated and codified into social or organizational norms. Specifically, it provides theoretical insights for analyzing processes associated with social learning and change.

The historical pattern of forest policy reform within the Canadian context is correlated to changes in the social values, ideas, and beliefs that lend meaning to political action and the adoption of management paradigms that offered tentative solutions to the problems that each of the provinces faced (Howlett and Rayner, 2001). Broad scale application of conservation

policies at the turn of the 20th century and the subsequent endorsement of the 'maximum sustainable yield' paradigm as the revised management optimum in the ensuing decades both corresponded to socially and scientifically endorsed mental constructs that evolved over time to affect provincial forest policy discourse and the regulatory strategies that were adopted (Howlett and Rayner, 1995, 2001). However, the replication of institutions is never perfect. Socially driven ideas are inherently malleable concepts and their interpretation may vary over time and across levels of interaction. What version, portion or aspect of an idea gets transmitted within a given socio-political environment, and what variation or part of these do recipients actually learn, use and adapt to suit their circumstances and make choices in interdependent situations represent a complex puzzle. As contemporary debates in global forest policy discussions arguably demonstrate, what constitutes sustainable resource use and what implications this has in terms of distributional equity (e.g., resource rights), management strategies such as those based on ecosystem approaches, or calls for more inclusive governance structures (e.g., public participation, decentralization, third-party certification) cannot be answered by any one specific set of ideas (see E. Ostrom, 2007). But as the shortcomings of the Canadian conservation movement illustrated nearly one hundred years ago, resource policies can always be adapted to emerging sets of ideas, symbols and social scripts without ever really changing the fundamental structure of the situation affecting resource use outcomes (see Chapters VI and VII, as well as Gillis and Roach, 1986; Hodgins *et al.*, 1982; Minville, 1944). And as more recent efforts to integrate sustainability concerns within Canadian forest policies have shown, provincial governments were quick to embrace the sustainable development paradigm of the 1980s and to exploit the vagaries of an emergent ecosystem-based approach in the 1990s (Howlett and Rayner, 2001; Wilson, 2001), without ever really committing themselves to anything more than figurative changes in the preambles of their respective legislations (Boyd, 2003). How such strategies will evolve in response to the growing wealth of scholarship on such things as ecosystem management (e.g., Gauthier *et al.*, 2009) remains to be seen.²⁶ Fortunately, changes in the general values, attitudes and beliefs of consumers are afoot (Goleman, 2009) and have since made it possible for a number of NGO and industry-led initiatives to bypass the more arduous channel of

²⁶ Quebec's Sustainable Forest Development Act, Bill 57 (L.Q., 2010, chapter 3) marks a significant change of policy in this respect. The Act effectively places ecosystem-based management front and center. Whether and how these new rules are applied and enforced should become clearer after April 2013, when the new law is scheduled to come into effect.

formal policy dialogue to develop non-state market-driven institutions that are proving themselves to be effective instruments of change (Auld *et al.*, 2008; Cashore *et al.*, 2004).

2.4 Extending the Search for Plausible Answers

Taken individually, the three strands of institutionalism offer distinct ontological pathways for understanding how different subsets of factors can affect the prospects of change in public resource governance institutions. Each provides insights that are consistent with observations drawn from the relevant literature, but as our analysis reveals, their respective strengths also contain the seeds of their limitations. Factors such as the maximization of potential gains, transaction costs, power structures, positive feedbacks, or shifts in the values and beliefs of society may be consistent with a number of situations but cannot possibly explain all situations, nor can they independently account for all aspects of change (or lack thereof) within a given situation. Put simply, the regularities of human behaviour cannot be explained without complementary sets of theories (E. Ostrom, 2005a, pp. 819-820). Further, just as no one body of theory can fully explain the performance of social-ecological systems over time, no single level of analysis can reasonably suffice in the conduct of the same exercise. Institutional change is always conditioned by multiple levels of interaction (E. Ostrom, 2005b, 2007) and selection (Blyth *et al.*, 2011; Hodgson and Knudsen, 2010; Lewis and Steinmo, 2012). In short, the quest to develop plausible explanations to the frailty of human undertakings in interdependent situations cannot be answered by restricting analytical inquiry to a specific theoretical lens or the immediacy of rule transformation at a particular level. Rule-ordered relationships and the incentives they create are structured by the nature of the biophysical assets actors dispose of, the attributes of the community within which they operate, the formal and informal rules in use, available information, and the choice mechanisms participants use to make decisions in action situations (Ostrom, 2005b). Failure to address the complex environment within which actions and decisions are nested can only lead to partial analyses and inconclusive results.

Given that the problems associated with a social-ecological system are specific to the collective experiment under consideration, the performance of specific institutional adaptations (i.e., solutions) can only be assessed in light of the nature (and possible limitations) of the underlying experiment. In other words, to understand the constraints and

opportunities associated with change, one needs to go beyond the conventional theories of institutional change and consider the very foundations of the rules ascribed to a given situation. Specifically, one needs to pay attention to the constitutional arrangements that structure social order and frame problem solving capabilities (Sabetti *et al.*, 2009). And since rules are always subordinated by constraints defined at deeper levels (Vanberg, 1994; Ostrom, 2005b), whether or not individuals can effectively alter the deeper level structures that govern social-ecological interactions depends on the nature of the constitutional arrangements that order the terms and conditions of governance (V. Ostrom, [1982] 1999, p. 151).

The dominant role of provincial governments in structuring forest policy dynamics within the Canadian context has generally been treated as a matter of fact rather than a matter of choice (e.g., Cashore and Vertinsky, 2000; Hessing *et al.*, 2005; Howlett, 2001; Rayner *et al.*, 2001; Ross, 1995; Wilson, 1998). As a result, scholars have been inclined to restrict analytical inquiry to the play of the game within existing sets of rules (V. Ostrom, [1979] 2009, p. 15), focusing on what Lasswell (1958) succinctly summarized as “who gets what, when and how.” While such a level of analysis has proven useful for understanding the general dynamics of Canadian forest policy issues, it offers little in the way of guidance for improving collective action or solving resource dilemmas. Yet, the decision to hand over jurisdictional authority over most of Canada’s natural resources to provincial authorities is, by definition, a constitutional choice. And if inquiry into the origins and development of rules and their corresponding effects on operational and collective-choice situations is to provide any meaningful insights, then greater attention will likewise need to be given to the constitutional choices that shape the underlying structural conditions under which collective action and institutional change may proceed. As Edella Schlager puts it, “to understand the patterns of order in a society ... one must pay attention to constitutional choice” (2009, p. 131).

The point is that “political constitutions ... have far more important implications than simply constraining strategic behaviour” in collective choice situations. “If they advantage certain types of individuals over others..., then they may also have the evolutionary effects of shaping who wins, who loses, who reproduces and who does not, and what we prefer” (Blyth

et al., 2011, p. 307). By drawing attention to the way ideas, values, habits, norms, and rules (variations) are selected, replicated and inherited in complex adaptive social-ecological systems, the constitutional level of analysis ultimately reinforces the need to develop causal narratives that explicitly recognize the evolutionary dimensions of institutional change. Developing empirically coherent explanations that are consistent with the evolution of complex systems requires a meta-theoretical framework, which only generalized Darwinism can provide (Hodgson and Knudsen, 2010, 2012).

2.4.1 Evolutionary Theory²⁷

The idea that Darwinian evolutionary theory can deliver a more cogent ontological framework for the study of social, political and economic change has recently generated a strong revival of earlier propositions by the likes of Thorsten Veblen, John Dewey, and others (Hodgson, 2002, 2004, 2007; Hodgson and Knudsen, 2006). Building on this earlier school of institutionalism, emerging scholarship posits that all complex systems are invariably governed by Darwinian evolutionary mechanisms wherein variations may be selected, replicated, and inherited over time (Blyth *et al.*, 2011; Holland, 1992). Further to the effects of genetic selection and replication, which proceeds slowly and almost imperceptively, human populations are also subject to social evolutionary change, driven by the acquired inheritance and selection of norms, habits, political institutions and other non-genetic replicators (Lewis and Steinmo, 2012, pp. 315-316). To understand the implications of social evolutionary theory, clear distinctions must be drawn between the “mechanisms of change” explored in the previous sections of this chapter, and the process of change, “as a basic ontological condition” of universal Darwinism (*Ibid.* p. 319). Essentially, this view holds that change is inherent to complex adaptive systems, and as in all evolutionary processes, social-institutional change is neither pareto-improving nor self-optimizing (Hodgson and Knudsen, 2010, 2012; Lewis and Steinmo, 2012). Generalized Darwinism merely suggests that a behavioral or physical trait is more likely to survive (i.e., be inherited or replicated) when those who hold such a trait derive a competitive advantage within a particular environment (*Ibid.*). Such an advantage may be short lived, as when the overexploitation of a forest yields measurable benefits for a generation or two, or limited in

²⁷ The author is indebted to Amy Poteete for her insightful observations on the need to consider evolutionary theory in this thesis.

scope, as in concessionary land hold systems that selectively favour certain subsets of individuals or groups (e.g., forest industry) over the broader population (e.g., forest dependent communities and society as a whole). Hence, “numerous traits can survive simultaneously without being the optimal solution to an environmental challenge” (Lewis and Steinmo, 2012, p. 319).

Institutional change, within an evolutionary perspective, is thus modulated by the human capacity to generate new rules and ideas (variation), strategically choose among alternatives (selection), and imperfectly copy or implement successful behaviours (replication) (*Ibid.*, p. 323). Trial and error learning (E. Ostrom, 1990, 2005b), deductive tinkering (Beinhocker, 2006), and the imperfect replication of routines, cognitive schemas or habits (Hodgson and Knudsen, 2010; Lewis and Steinmo, 2012) are but some of the ways in which variation may be introduced in a system, thus creating the potential for social and political innovation. However, because social-ecological systems are inherently complex – conflated by configural relationships that make it nearly impossible to foresee the repercussions of change, humans do not have the capacity to fully predict the consequences of their actions (Lewis and Steinmo, 2012; E. Ostrom, 2005b). Outcomes are products of emergent properties and complex systems cannot be reduced to the sum of their individual parts (Hodgson, 2010; Hodgson and Knudsen, 2012; Steinmo, 2010).

Though evolution tends to proceed rather myopically, selection pressure may be endogenous, as when individuals attempt to solve collective-action problems (Steinmo, 2010), or may be affected by Lamarckian mechanisms of environmental selection, wherein exogenous factors forcibly affect the selection and inheritance of adaptive traits (Hodgson and Knudsen, 2006, pp. 12-13; Lewis and Steinmo, 2012, p. 321). In the political realm, institutional change tends to proceed through the selectorate (i.e., those who hold collective choice rights in a given political order) (Lewis and Steinmo, 2012, p. 332). Governments, in other terms, “make targeted decisions for institutional reform, and seek artificially to shape social outcomes by generating new mechanisms of social selection in addition to natural selection” (*Ibid.*). The evolution of political institutions therefore, crucially depends upon the selection of policy ideas by decision-makers and the replication of such ideas “across other individuals, organizations, and institutions” (*Ibid.*, p. 318). As such, constitutional choices

offer “selection mechanisms” for “winnow[ing] certain ideas relative to others” (*Ibid.*, p. 319). While evolutionary theory “does not privilege the direction of causality” (*Ibid.*), it remains that “power holders within regimes” effectively play a critical role in “select[ing] and direct[ing] policy ideas” through “iterated variation-selection-replication process[es]” (*Ibid.*, p. 337). Ultimately, “different institutional designs” will “structure different human natures,” thus producing distinct evolutionary pathways (Blyth et al., 2011, p. 307).

Viewed accordingly, the task of evolutionary scholarship lies in understanding “the forces and dynamics that have shaped the world as we know it” (Steinmo, 2010, p. 12). In this sense, “evolutionary scientists are necessarily engaged in path analysis and process tracing. They are interested in both explaining adaptations and understanding the consequences of those adaptations” (*Ibid.* centralized decision-making authority centralized decision-making authority, p. 13). Following Sewell (2005), they argue that chance, contingency and critical junctures matter (Blyth et al., 2011). Change is driven by structural-agent interactions and is subject to heterogeneous temporal causation (see also Hodgson, 2010). History, in other words, “is not a linear process” (Steinmo, 2010, p. 14), and developing plausible accounts of institutional change that recognize “positive feedbacks and the complexities of fitness landscapes” entail the formulation of “historical narratives” (Blyth et al., 2011, p. 303). As Ernst Mayr (1988, p. 149) puts it, “when one attempts to explain the features of something that is the product of evolution, one must attempt to reconstruct the evolutionary history of this feature.” Social, political, and economic systems are conditioned by their “historical legacies,” and thus constitute but “imperfect copies of earlier decisions and compromises” (Lewis and Steinmo, 2012, p. 322).

In sum, “[e]volutionary theory offers a framework for understanding sources of endogenous *and* exogenous changes,” providing “an explicit theoretical framework for understanding how these sources of change interact in an incremental process” (Blyth et al., 2011, p. 309). And because “[c]omplex systems carry the baggage of their own history,” understanding the nature of a specific phenomenon means that “we must [also] know something about its evolutionary past” (Hodgson and Knudsen, 2012).

2.5 Conclusion

Constitutional choices directly affect the core Darwinian principles of variation, selection and replication by exercising a determining effect on the ideas, values or interests that are selected and replicated within a given society. By exercising control over the problem solving capabilities of a polity, constitutional choices ultimately affect the institutional solutions that are retained and passed on. In the absence of open deliberative processes that can incorporate the interests of a broader range of constituencies, the selective pressure of concentrated power will often undermine the collective, but diffuse, interests of society.

While a given social-political system may be “driven by the permanent efforts of individual human beings to improve their lot, to solve the problems they face, and to explore new opportunities” (Vanberg, 1994, p. 173), such efforts are invariably constrained by the degree of freedom actors have for experimenting with novel ideas and solutions (Vanberg, 1992, p. 109). In some circumstances, the freedom to experiment may be limited to devising alternative strategies within a currently fixed set of rules or to simply vote with their feet, while in other situations, individuals may be able to engage in what Ostrom (2005b) calls level-shifting strategies, whereby actors seek to affect change within higher-level decision-making arenas. But as public choice theorists warn, achieving long lasting reforms or improvements in the outcomes associated with a given set of rules cannot be done through changes in the “day-to-day polic[ies] that temporary politicians may be somehow persuaded to follow” (Buchanan, [1981] 2001, p. 46). Rather, they require changes in the “set of constraints within which political decisions are made” (*Ibid*).

The sovereign authority of Canadian provincial legislatures to govern the use of natural resources and harness the rents associated with their exploitation is unlikely to be fully devolved or decentralized to lower decision-making bodies anytime soon. Moreover, “because of the complex, interlocking relationships” that typify social, political, or economic systems, processes of adaptation tend to be “confined to incremental and partial adjustments within an existing structural configuration” (Hodgson and Knudsen, 2012). If social scientists are to make progress in developing policy prescriptions that improve joint outcomes in interdependent situations, then greater emphasis will need to be placed on the structure of the situation within which actors are embedded and how this affects the prospect of collective

action, institutional change, and improved evolutionary outcomes. As the work of constitutional scholars such as James Buchanan, Vincent Ostrom and Viktor Vanberg clearly demonstrates, efforts to understand the constraints that hinder collective action must also take into account the theoretical foundation of the political experiment under consideration. And since “evolutionary theory assumes *complex causation*” (Steinmo, 2010, p. 10, emphasis in original), no single body of theory may be deemed sufficient to explain the dynamics of complex adaptive systems. Analysts need to adopt a richer and more diverse set of theoretical tools to navigate across the complex temporal sources of causation.

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CHAPTER III: CONSTITUTIONAL CHOICE

3.1 Introduction

The influence of governments over the world's natural resources is pervasive. Whether concerns relate to renewable (e.g., forests, inshore and offshore fisheries, and fresh water systems) or non-renewable (e.g., oil, gas and minerals) resource systems, governments everywhere either directly (e.g., ownership, exploitation or concessionary grants) or indirectly (e.g., laws, regulations, policies, property enforcement) affect the way natural resources are used, managed and governed. Through their domestic and foreign economic policies, the trade agreements they ratify, and whatever environmental agreements or conventions they may be persuaded to sanction, governments play a determining role in the allocation and use of common-pool resources both within and beyond their jurisdictional boundaries. Moreover, regardless of whether state proprietary institutions are enforced or not, states and their governments remain residual claimants to the vast majority of the Earth's resources and to the extent that they maintain control over the prerogatives of rulership, the degree to which the resource rights of others are recognized and enforced ultimately depends on the actions of governments. In a world where global environmental change is vastly outpacing our capacity to respond (ICSU, 2010), the need to better understand how the rules of social order ultimately affect the ability of polities to solve the problems they confront has arguably never been greater.

The ability of governments to affect resource use outcomes in public, private, and common-property arrangements poses a fundamental challenge for the maintenance of biological diversity and the sustainable use of natural resources. Understanding the source, legitimacy, limitations, and benefits of political structures and the constitution of order are of crucial concern not only for the health and wellbeing of democracy, but also for resolving the massive inequalities of human societies and ensuring the very survival of life-supporting

ecosystems on Earth. Critical questions arise when the level of analysis is shifted from the play of the game within a given set of rules to the rules of the game themselves. What is the nature of social order? How do humans create order in their relationships to one another? What are different models of rule-ordered arrangements and what consequences can be expected to flow from such structures? How do constitutional choices affect collective action and resolution of dilemma situations, including the sustainable use of common-pool resources? How can the performance of such arrangements be improved over time? What is the role of human agency in structuring and improving the rules that govern their lives? What does it mean to participate in the maintenance of viable democratic structures?

The purpose of this chapter is to investigate the relationship between constitutional choice rules and the struggle to sustainably govern natural resources, including the capacity of polities to resolve dilemma situations, produce public goods and maintain the viability of social-ecological systems. The chapter is divided into two sections. Following this short introduction, the first section focuses on the theoretical underpinnings of constitutional choice rules, and is divided as follows: (i) the nature of common-pool resource problems; (ii) the logic of rules for ordering relationships, (iii) the consequences of rules, (iii) normative methods of inquiry, (iv) social contract theory, (v) the basic models of political order, and (vi) improving social-ecological outcomes. The second section links theory to the empirical reality of Canada's constitutional experiment relative to provincial governments. It provides a synoptic view of the constitutional provisions that define the constraints within which Canadian provincial governments operate, with a particular focus on Québec. The Chapter ends with a brief introduction to the constitutional dimensions of natural resources within the Canadian context.

3.2 Theoretical Underpinnings

3.2.1 Common Pool Resource Dilemmas

The nature of common-pool resources (CPRs) imparts unique challenges for collective action. They combine characteristics of both private and public goods. Like private goods, CPRs are subtractable, in that one person's appropriation is no longer available for others, but like public goods, the cost of excluding others is comparatively high (E. Ostrom and

Walker, [1997] 2000, pp. 430-433). Consequently, "[w]ithout some form of coordination or organization to enable individuals to agree upon, monitor, and sanction the patterns of appropriation from a CPR, the resource will be overused" (*Ibid.*, p. 458). In other words, in the absence of rule-ordered relationships that can affect the incentives that resource users and decision-makers face, theory predicts that each will be motivated to fulfil his or her own short term interests, leading to overexploitation and the dilemma situation Hardin (1968) referred to as a "tragedy of the commons."

Dilemmas emerge whenever "individuals make independent choices in interdependent situations" (Ostrom, 1998, p.476, citing Dawes, 1975, 1980). However, contrary to the predictions heralded by Garret Hardin's Tragedy model, non-cooperative game theory (e.g., Prisoner's Dilemma by Rapoport and Chammah, 1965) and Mancur Olson's Logic of Collective Action (1965), individuals engaged in joint use situations are not hopelessly trapped in "universally tragic situations" (E. Ostrom *et al.*, 1994, p. 15). Findings drawn from several decades of research on common-pool resource problems in both laboratory and field settings show that users of a resource system are not bounded by the dilemmas they create (e.g., Berkes, 1989; Bromley *et al.*, 1992; NRC, 1986, 2002; E. Ostrom, 1990; E. Ostrom *et al.*, 1994). Evidence shows that when resource users are faced with repeated coordination games and are able to communicate, build trust and adopt norms of reciprocity, they will be more likely to develop joint strategies for reducing aggregate consumption levels and elicit contributions towards maintenance activities (E. Ostrom, 2009; E. Ostrom *et al.*, 1994). However, trust and reciprocity alone will not suffice to overcome most resource dilemmas and the problems that lead to them (E. Ostrom, 2009). In the absence of effective monitoring and enforcement measures, some individuals may be tempted to act opportunistically and appropriate more resources or shirk their responsibilities towards the cost of maintaining the system (*Ibid.*; see also E. Ostrom, 1990; E. Ostrom *et al.*, 1994). Avoiding potentially hazardous resource dilemmas requires durable solutions to *appropriation* problems, which concern the flow and distribution of resource units over time, and *provisioning* or maintenance problems, which concern the relationship between the productive capacity of a resource system and the means by which appropriators organize themselves to maintain or even enhance a system's productivity over time (E. Ostrom *et al.*, 1994, pp. 9-15).

The emergent theory of common-pool resources (see Poteete *et al.*, 2010, ch. 9) holds that individuals endowed with the capacity to self-organize in a relatively predictable environment, communicate, learn, and develop norms of trust and reciprocity, are more likely to invest in collective actions that lead to institutional change than individuals in other comparable situations.²⁸ At the core of this analysis lie the perceived costs and benefits of change that resource users or policy makers rely upon to make decisions. While the cost/benefit calculus of boundedly rational actors may well evolve in response to trial and error learning and the broadening or refinement of individual preferences (*Ibid.*, pp. 222-226), their ability to actually engage others and reduce the costs of change may in fact lie beyond their immediate control. As discussed in the previous chapter, collective action may be hampered by: (i) the hierarchically nested structure of rules that limits access to collective choice arenas; (ii) the development of complex webs of inter-institutional linkages that increase the relative costs of change; (iii) the effects of previous policy choices on subsequent investment decisions, which can produce increasing returns to the principle beneficiaries and a corollary dependence upon the continuation of established arrangements; (iv) the asymmetrical distribution of power and the formation of political coalitions and lobby groups with a vested interest; and (v) the exigencies of shifting socioeconomic concerns and political motives, which can limit opportunities for change.

To better assess how these and other potential problems can manifest themselves in more particularized circumstances, clarity on the nature and consequences of rule-ordered relationships is essential. And in order to appreciate the constraints and opportunities associated with institutional change, analytical attention has to be placed on the constitutional arrangements that structure social order and frame problem solving capabilities (Sabetti *et al.*, 2009).

3.2.2 The Logic of Rules

Humans rely on rules to order their relationships, coordinate their behaviours, and increase predictability in interactive situations. By determining the deontic boundaries of

²⁸ Among the frequently identified variables observed in commons research are those associated with the nature of the resource system (e.g., size, productivity and predictability) and the users themselves (e.g., number of users, their socioeconomic attributes, previous experience, social capital, knowledge of the system and its perceived importance, and autonomy to make collective-choices). See Poteete *et al.*, (2010, pp. 238-239).

what actions or behaviours are permitted, forbidden, or required, rules ultimately help frame social order in human societies (E. Ostrom, 2005b). As such, rules are fundamentally normative creations that implicitly or explicitly call upon the ability of individuals to distinguish between what is socially, legally, or culturally appropriate and what is not. In order to understand, apply, and enforce rules, humans rely on norms or some other criterion to make distinctions between permissible and proscribed actions. Rules therefore, represent shared prescriptions, framed in linguistic constructions that embody the ideas and values of their makers, and thus depend upon the ability of others to make ethical or moral interpersonal comparisons so as to avoid harming others in interdependent situations (V. Ostrom, [1988] 2011, pp. 460-461). "To act with reference to a rule requires that individuals make normative distinctions to apply rules; and to enforce rules requires that norms and criteria of choice be subject to public understanding by all of those who are involved" (*Ibid.*, p. 461). Hence, all human societies are governed by rule-ordered relationships that function within shared communities of understanding (V. Ostrom, 1997).

However, because rules are never self-formulating, self-applying, or self-enforcing, the constitution of social order depends on human agency to formulate, apply, monitor, enforce, and alter rules (V. Ostrom, 1997, p. 138; [1982] 1999, p. 383; [1988] 2011, p. 464). To make rules binding, communities rely on authority relationships that distinguish between different decision-making arenas that specify the authority actors have for acting in relation to one another (V. Ostrom, [1988] 2011, p. 464). Authority relationships specify the worlds of action that cumulatively affect the outcomes produced and subsequent rounds of decision-making situations (Kiser and Ostrom, [1982] 2000). Key to understanding this relationship are the distinctions made between (i) authorized relationships (actions) in operational decision-making situations; (ii) authoritative relationships that are established through collective decision-making bodies of such governments, wherein actors possess the extraordinary authority to formulate, apply, enforce, and alter rules or legal relationships in operational situations; and (iii) constitutional relationships that specify the terms and conditions applicable to the exercise of government, and thus pertain to the rules that apply to authoritative relationships and ultimately govern authorized relationships (E. Ostrom, 2005b, pp. 58-61; V. Ostrom [1988] 2011, pp. 464-465).

The significance of such authority relationships ultimately rests in the illusive quest to develop modes of governance that can uphold the democratic and civic ideals of political communities, without infringing upon them – what Vincent Ostrom refers to as setting the “terms and conditions of government” and the “due processes of law” (*Ibid*). And working out what Gerring and Thacker (2008, p. 165) call the “political-institutional foundations of good governance” may quite possibly be “the most critical problem in the constitution of order in human societies” (V. Ostrom, [1988] 2011, p. 466; see also Steinberger, 2004).

3.2.3 The Consequences of Rules

The failure of governments to devise policies and regulatory measures that support the production of public goods or encourage the efficient use of common-pool resources is well documented (e.g., Acheson, 2006; Ascher, 1999; Ascher and Healy, 1990; Bates, 2008, [1981] 2005; Buchanan and Tullock, 1962; Diamond, 2005; Eggertsson, 2005; Gillis and Roach, 1986; Gunderson *et al.*, 1995; V. Ostrom, 1993; Repetto and Gillis, 1988). Dependence on resource rents and the use of force (whether legitimate or not) in favour of domestic or foreign political and economic interests is reflected in a number of theoretical propositions, such as the rentier’s thesis (e.g., Moore, 2004; Ross, 1999), the staples theory (e.g., Innis, [1930] 1999; Watkins, 1963), and world-systems theory (e.g., Ciccantell *et al.*, 2005; Hornborg *et al.*, 2007). Governments are routinely accused of undermining the collective efforts of local resource users to self-organize and find solutions to the problems they face. Reference to ill-advised government interventions, the reluctance of state officials to recognize common-property arrangements, or the partiality of decentralization efforts in favour of central governments or other powerful interests permeate the commons literature (e.g., Larson and Soto, 2008; E. Ostrom, 1990; Poteete *et al.*, 2010; Ribot and Larson, 2005). As institutional theorists argue (Knight, 1992; North, 1990, 1994; Powell and DiMaggio, 1991; Schmid, 2004), the distributional outcome of institutional change is nearly always slanted in favour of existing power structures.

Of related importance to the problem of power asymmetries is the challenging issue of majoritarianism and the extent to which existing constitutional provisions provide a sufficient check on the propensity of ruling governments to direct policies, including distributional and allocative outcomes, to suit their own interests. The endogenous nature of collective-choice

rules combined with majoritarian governments can allow successful coalitions to use their position to order preferences in their favour and restrict the set of alternatives to be selected to those that maximize payoffs to their members or constituencies at the expense of others (Buchanan and Congleton, 1998, p. 21). Findings on majority voting in common-pool resource situations from case study research and lab experiments likewise produced concentration of distributional gains among the winning coalitions (Walker *et al.*, 2000). Unless changes in the electoral system can be introduced to enhance voter objectivity in the selection of candidates and further proportional representation (Gerring and Thacker, 2008), periodic elections will not provide a sufficient security for holding public officials accountable.²⁹

Were it not for the ubiquitous problem of special interests and the opportunity costs associated with rent seeking, the ability of majority governments to control the policy-making agenda would arguably raise fewer concerns, as Gerring and Thacker (2008) seem to suggest. However, with increasing evidence of market pressure for more lenient regulatory measures, lax enforcement, and demands for corporate handouts – the “systematic tendency for exploitation of the great by the small,” as Olson (1965, p. 29) put it, suggests the need for much greater scepticism in the ability of majority governments to uphold the public’s interests.

Yet, failure does not always rest with those who hold public office. Government hierarchies are themselves replete with opportunities to obfuscate the production of public goods and ensure the sustainable use of natural resources. Whether the issue is rent-seeking (Baland and Francois, 2000; Tollison, 1997; Torvik, 2002), corruption (Abed and Gupta, 2002; Barrett *et al.*, 2005), or principal-agent problems within large public bureaucracies that contribute to information distortion, waste, shirking, free riding or budget maximization

²⁹ The idea that individual votes should somehow be treated as a reflection of the equal intensities of voter preferences is regarded as unfounded and misleading (Buchanan and Tullock, 1962, pp. 94-95). With regards to the electoral process itself, voting and voting cycles has been the subject of much scholarship in recent decades (Schlager, 2009). Elections do not and cannot express the aggregated preferences of a polity in a way that satisfies any measure of fairness or consistency in the ordering of collective interests (e.g., Arrow, 1951; Black, 1958; Tsebelis, 2002). Further, provided that candidates face considerable incentives to direct their electoral platforms to some broad generalization of the median voters (Downs, 1957; Buchanan, [1979] 1999b) and their more immediate concerns regarding “who gets what, when and how” (Lasswell, 1958), political debates tend to focus on the distributional and allocative strategies of the differing policy agendas of competing political formations, instead of the more substantial and arguably more important dimensions of their legislative agenda, whether they have one or not (Hayek, 1979).

(Miller, 1992; Niskanen, 1971; Tullock, 1965), the range of failures that can affect resource use outcomes are substantial and not amenable to quick fixes. While efforts by principals to maintain control over their agents is a fundamental problem in the administration of public affairs, all such problems ultimately rest on institutional arrangements that can be disaggregated, analyzed, compared, and changed.

Directly or indirectly, the failure of governments and/or markets ultimately rests within the political sphere (Bates, 1995). Viewed in this light, the problems that flow from inefficient, unsustainable or inequitable economic activities do not stem from the failure of markets, high transaction costs or other purported flaws, but from the underlying structure of politics itself (Bates, 1995, p. 45; Buchanan, [1964] 1999, p. 38; [1987] 2001a, pp. 5-6; see also Buchanan and Tullock, 1962). For it is within the political sphere that the legal relationships of market situations are established, and operational and collective choices are determined (Brennan and Buchanan, [1985] 2000, p. 16). It is through the political institution of government, at the national or sub-national levels, that rules (including norms, values and habits) tend to be sanctioned, enforced, or purposefully neglected. And it is through the actions of government that many of our social (cultural), political, and economic institutions (i.e., variations) tend to be selected and/or replicated. Hence, if "improvements in the patterns of political outcomes are [ever] to be expected," it is through the instrumentality of constitutional structures that reform must proceed (Buchanan, 2002, p. 1).

Long lasting and socially warranted reforms therefore, will not be achieved through the policies that temporary political actors may be urged to adopt, but from changes in the underlying rules that govern how the game is to be played (Buchanan, [1981] 2001, pp. 45-46). In other words, Pareto improving solutions are unlikely to emerge without the imposition of constrain or conditions in the decisions actors can make in collective choice situations – as Wicksell (1896) recognized long ago (see Buchanan, [1987] 2001a, [1987] 2001b), efforts to limit the prerogatives of rulership (V. Ostrom, 2008), or the development of more inclusiveness, fair, and effective means of deliberation (Gerring and Thacker, 2008). The ultimate purpose of politics thus concerns ways to establish rule-ordered relationships that help foster mutually beneficial outcomes, regardless of the interests and preferences of those who may be called upon to make political decisions (Vanberg, 2006, p. 12). As such,

constitutional choice does not concern itself with the particulars of choice within a given set of constraints but with “setting up rules or constraints within which politicians [i.e., public decision-maker] must operate, rules that will make it a relatively trivial matter” who happens to be in government (Buchanan, [1981] 2001, p. 47). But if the intent of constitutional reform is to strengthen the ability of a polity to achieve socially valued ends, then the question that needs to be addressed is what are the criteria or performance standards that public institutions should uphold? This requires a shift from the positive analysis of what is being achieved, to a normative level of inquiry into the realm of what ought to be achieved.

3.2.4 Normative Inquiry: Using the State as the Standard

Understanding how people solve dilemma situations requires a theory of rules and institutions, which implies a theory of how ideas are linked to knowledge, learning, and change (Aligica and Boettke, 2009, p. 132). Because institutions are “created by human beings with reference to the use of learning and knowledge to serve human purposes,” (V. Ostrom, [1980] 1999, p. 377), it follows that the study of such *artifacts* should at the very least consider the “intentions, conceptions and calculations” that were used to inform choice (V. Ostrom, [1982] 1999, p. 152). In other words, if “every measure of policy is”, as Dewey suggests, “of the nature of an experiment” (1938, p. 508), then one needs to have some understanding of the experiment in question and what it intended to achieve.

Normative analyses of constitutional and collective choice rules focus on the ideas, values, and norms that actors use to inform the creation of rule-ordered relationships (Buchanan, [1979] 1999a; V. Ostrom, [1980] 1999). Because normative considerations are context specific (Frohlich *et al.*, 2004, p. 116; discussed in E. Ostrom, 2005, pp. 109-113) and adhere to cultural referents that embody the values and beliefs of a given polity (North, 2005, pp. 50-51), or social structures in more encompassing terms (Hodgson, 2007, 2010, 2012), they provide an essential means of understanding the mental constructs that individuals use to navigate the social and biophysical world within which they operate (North, 2005, p. 61; Ostrom, 2005b), and the standards or criteria used to inform the decisions and choices that are made in interdependent situations (V. Ostrom, 2008, pp. 19-21). Consequently, if systems of governance are assumed to derive from reflection and choice, then inquiry into the long-term performance of any social-ecological experiment has

to be attentive to the complementary insights that can be leveraged by linking theory to action and experience to learning (V. Ostrom, 1997), as well as the deeper level social structures and processes that condition human agency and the range of alternatives (i.e., variations) that can plausibly be selected or replicated (Hodgson, 2010; Katznelson, 2003).

However, given the near endless potentiality of the human spirit, to both imagine alternative settings and disagree upon what these should be, what does a shift towards a normative level of inquiry entail and what prescriptive remedies are we likely to find in such considerations? One enduring source of reflection lies in Thomas Hobbes' seminal contribution to modern political theory, and his normative consideration of the commonwealth as an ideal. As elaborated in *Leviathan* (Hobbes, [1651] 1839-45), Hobbes posited that "men [would] agree amongst themselves, to submit to some man, or assembly of men, voluntarily, on confidence to be protected by him against all others" (*Ibid.*, p.99). Only by "unity of them all, in one and the same person, made by covenant" wherein everyone authorizes and gives up his or her own right to govern themselves can a "political commonwealth, or commonwealth by institution" provide the peace, justice, equity and security that all men long for (*Ibid.*, pp. 98-99). Putting aside Hobbes' own inclination for monarchical government, the basic tenet of his argument is not that individuals should relinquish their autonomy in favour of a sovereign, as Vincent Ostrom consistently and wrongly emphasised throughout his work, but that the ultimate aim or purpose of a commonwealth, is to pursue peace, order, and unity (Steinberger, 2004, p. 49) through the fair and equal treatment of all before the sovereign (i.e., crown or state) (Wolin, 2004, pp. 242-243). That Hobbes argued in favour of a monarchical system is secondary to the standard he used to argue in favour of his preferred model.³⁰ In other words, "order for Hobbes is a constitutive end of political society precisely because it is (an important part of) what makes political society useful in promoting human flourishing" (Steinberger, 2004, p. 49). The Hobbesian prescience, Steinberger (*Ibid.*, p. 48) furthers, was to recognize that "philosophical inquiry... is a fundamental and necessary feature of any effort to think prudently about

³⁰ As Steinberger explains (2004, p. xiii), "Hobbes argues that a legitimate commonwealth might be monarchically, aristocratically or democratically organized. In saying this, he suggests, in effect, that the notion of the state itself does not entail and does not depend on any specific answers to questions about the best form of government, the proper scope and direction of governmental activity, the true nature and range of civil liberties, and so on. Such a view is shared, *mutatis mutandis*, by a variety of authors – Aristotle, Locke and Rousseau"

politics in the real world. By failing to understand the concept of sovereignty, we are apt to pursue policies and institutional strategies... that are doomed to fail.”

The elemental idea of the state, Steinberger (Ibid., pp. 10-14) argues, is fundamental to politics because it resides in the minds of people, forming what Bourdieu (2000, p. 142) referred to as enduring “solidarities” that “constructs the world and gives it its meaning”. It is a “*structure of intelligibility*...[...], a structure of judgements about what is true and what is not” (Steinberger, 2004, p. 13, emphasis in original). It is, properly speaking, an idea, reflected in such terms as the “body politic,” “political community,” “commonwealth” or “nation” wherein government is only part of a complex and organic whole (Ibid., pp. 13-14). To use Rousseau’s (*du Contrat Social*, III, I) insights on this point, government is but an agent of the body politic, an intermediary between the aspirations of the public and the state itself.³¹ In this sense, the idea of the state offers a philosophical theory or normative framework on what the nature of social order, as understood by members of society, should be or tend towards.³² Yet, because such ideas live in the minds of people and are embodied in the language, concepts, and propositions of a polity, without being necessarily codified or formalized, the values, norms and beliefs they engender will tend to evolve more quickly than what the formal institutions of government provide for. Simpler and more direct pathways for replication and adaptation may yield selection pressures and social tensions that can spur demand for change from the bottom and a resistance to such demands from the top. As the collected works of historian Howard Zinn amply demonstrates, significant social change has nearly always emerged from the people, not from the holders of public office.

Hence, ideas, values and beliefs are the malleable concepts actors use to affect structures, organize processes, and influence patterns of conduct for the purposes of solving dilemma situations and improving joint outcomes (V.Ostrom, 1997, p. 115). To be effective

³¹ “Il faut donc à la force publique un agent propre qui la réunisse et la mette en oeuvre selon les directions de la volonté générale, qui serve à la communication de l’État et du souverain, qui fasse en quelque sorte dans la personne publique ce que fait dans l’homme l’union de l’âme et du corps. Voilà quelle est, dans l’État, la raison du gouvernement, confondu mal à propos avec le souverain, dont il n’est que le ministre. Qu’est-ce donc que le gouvernement? Un corps intermédiaire établi entre les sujets et le souverain pour leur mutuelle correspondance, chargé de l’exécution des lois et du maintien de la liberté tant civile que politique.”

³² In explaining this conception of the state, Steinberger (2004, p. 21) notes that “The state is nothing other than, and nothing less than, a systematic structure of ideas on the basis of which the individuals of a society seek jointly to control the physical objects that surround them.... At the core of the state, one finds not tools but a conceptual apparatus; and this is what makes it, in essence, a structure of intelligibility.”

however, rule-ordered relationships have to be structured through language imbued with referents that hold meaning to the individuals that use them, and the communities within which they operate. In short, “sound policy” prescriptions “absolutely presupposes sound philosophy” (Steinberger, 2004, p. 49), for “things in the world are rendered meaningful and important only and entirely in terms of ideas” (*Ibid.*, p. 25) Analytical inquiry into the performance of rules thus requires some understanding of the conjectures and hypotheses that were used to inform causal linkages, and the value terms that were used to establish norms and criteria for choice (V. Ostrom, [1988] 2011, p. 461). The standard for normative inquiry thus lies in the shared beliefs and aspirations of the body politic – that which forms the attributes of a viable commonwealth. And increasingly, the viability of commonwealths no longer depend on peace, order and unity alone, but in open deliberative processes and normative foundations that recognize sustainability, equity and equality as being non-negotiable. How polities organize themselves to ensure that government “makes good decisions and fulfills, thereby, the aims of the state” (Steinberger, 2004, p. 273) is through the social contract of constitutional choice rules.

3.2.5 Covenants and Contracts

Drawing upon the insights of the moral and political philosophers of the seventeenth and eighteenth centuries, especially Spinoza, Locke, Hume, and Smith, as well as the ideas of Wicksell (1896), Buchanan and Tullock (1962) (re)introduced the theory of the social contract to discern what they referred to as the “logical foundations of constitutional democracy.” Essentially, Buchanan and Tullock posited that individuals engaged in collective undertakings could minimize private costs and improve joint outcomes by relying on rules that increase the likelihood of fair outcomes in collective-decision making arenas. In constitutional terms, individuals need not determine an agreed upon collective preference, a proposition that is as much an illusion as it is an impossibility (Arrow, 1951), but instead must jointly determine what would be an acceptable aggregation rule for making future collective decisions (V. Ostrom, [2007] 2012, pp. 600-601). The contractarian approach to constitutionalism posits that the choice of rules for making future decisions necessarily occurs through a process of exchange wherein prior agreement (i.e., contract) between or among choosing parties must be reached to ensure that the rules of the game will in fact yield

plays that are considered fair by all players of the relevant community, independent of their respective future situations (Buchanan, [1986] 1999, pp. 22-24). It is at this particular juncture that constitutional political economics moves into the domain of political philosophy, and in particular, that of social contract theory (Buchanan, [1979] 1999b, p. 50).

As discussed earlier, the rule-ruler-ruled relationship always implies the potential for fundamental asymmetries in the constitution of social order (V. Ostrom, [1988] 2011). What grants legitimacy to the actions of governments, and how such actions can be constrained or directed towards some socially valued end are questions that lie at the heart of social contract theory (see V. Ostrom, 1997, p. 262), and western political thought, since before the time of Aristotle (Wolin, 2004). In effect, social contract theory implies, by definition, “equality among autonomous individuals who are capable of entering into binding agreements with one another”, the term “federal” being itself derived from the Latin *foedus*, which means to covenant (V. Ostrom, [1996] 2012, p. 75). Covenanting with others implies that authority relationships are necessarily bounded and limited, reinforced by veto capabilities that give reciprocating individuals the opportunity to challenge or contest actionable infringements in diverse settings and arenas (V. Ostrom, 1997, p. 279). In short, covenants set the terms and conditions of governance and the social “covenant” or “contract” implicitly refer to the actual constitution of a body politic.

When applied through the more state-centric lens of Public Choice, covenanting amongst equals turns to the contractarian logic of the limited constitution commonly discussed by proponents of decentralism. Attention shifts to the boundaries within which governments operate, including the constraints that are placed upon elected officials and bureaucrats in order to constrain not only what governments do, but also what they achieve relative to collectively defined normative considerations such as peace, justice, fairness, equality, and sustainability. Yet, as Buchanan ([1972] 1999, p. 430) points out, the idea of the social contract is more mythological and theoretical than factual and historical. Few polities have ever engaged in such tacit considerations of the underlying rules of the game. A strong case in point pertains to the constitutional foundations of the Westminster parliamentary tradition that Canada and the provinces inherited, and which largely rests on “unwritten” conventions, customs, and traditions. Though such constitutional principles are always in flux

and constantly evolving to address challenges and unforeseen impediments (Cairns, 1988; Johari, 2006), there are strong reasons to believe that such changes are broadly out of step with the aspirations and interests of the citizenry (at least in the Canadian context) and that the rules in place are largely inadequate for addressing the emerging social and environmental dilemmas that societies such as Canada now confront (e.g., Hicks, 2010; MacDonald, [1996] 2012, see also section 3.3 below)

The question raised by social contract theory is whether the existing (written or unwritten) “rules that constrain the activity of ordinary politics could have emerged from agreement in a constitutional contract” (Buchanan ([1986] 1999, p. 467). If the answer is yes, then there is no reason to believe that a constitutional order affects political economic outcomes. But if the answer is no, then the basis of a justificatory argument for the “normative criticism of the existing order, and a criterion for advancing proposals for constitutional reform” may be established (*Ibid.*). The fundamental importance of this question can readily be illustrated by any one of the massive environmental dilemmas that humanity now confronts. Paralleling an analogy developed by Buchanan (*Ibid.*) concerning debt financing, one could argue that it would be nearly “impossible to construct a contractual calculus in which representatives of separate generations would agree to allow majorities in a single generation” to overexploit common-pool resources, degrade life-supporting ecosystems, and emit vast amounts of pollutants for its own benefit, and in turn impose heavy “utility losses” and environmental costs to future generations. In other words, if the underlying rules of the game allow one or more generations to make decisions that benefit them at the expense of all other succeeding generations, or that benefit some groups at the expense of all others within a single generation – be it through environmental degradation, debt, economic inequality, or any other injustice – then the problem lies not in the putative failure of markets or governments, but in the more fundamental absence or inadequacies of existing constitutional choice rules. In short, “[g]overnment – however formulated – is always underwritten by, and must always serve the interests and goals of, the state” (Steinberger, 2004, p. xiii) or *social contract*, as Rousseau puts it. As the embodiment of the body politic, it is the state that is “omni-competent in scope, absolute in authority and organic in composition,” not government (*Ibid.*, p. xiv) Keeping public decision-makers within the

bounds of normative (and constitutional) constraints, and making sure that future collective and operational choices respect the terms and conditions of the social contract is the essence of contractarian theory and the rationale for a more explicit focus on the constitutional level of analysis.

Being able to appreciate whether the existing social order either fails to address important normative considerations or fails to enforce existing social agreements (towards improved social-ecological outcomes) is crucial. But understanding how such changes can be brought about within existing political-economic structures requires some basic understanding of the leverage points that may or may not exist within a given political institution, and how such institutions can be made to yield Pareto better solutions for society.

3.2.6 Whither the State: Basic Models of Political Order

Key to understanding the structure of the situation actors face is the need to understand the basic models of government that have evolved in western democracies over the past several centuries, and how these may be expected to affect social-ecological outcomes. Two fundamentally different formulae are thought to categorize the broad range political structures humans use to constitute order in society, namely: 1) the unitary theory of centralist governments and 2) the decentralist theory of federal or compound republics (Gerring and Thacker, 2008; V. Ostrom, 1982, 1997, 2008).

One of the more powerful defences of unitary forms of government to have emerged in recent years is provided by Gerring and Thacker (2008). Following the ideas of Thomas Hobbes, Jean Bodin, Walter Bagehot, and John Stuart Mill, among many others, centralism argues that a common set of rules and common body of law can only be found in a single source of law, a conception which presumes that the “unity of law depends upon the unity of power” (V. Ostrom [1988] 2011, p. 467). For in the absence of a defined center of authority, Hobbes posited, chaos would inevitably unfold as each individual sought to maximise his or her own self-interest ([1651] 1839-45, pp. 71-74). The modern conceptualisation of the centralist model essentially developed in 19th century England as an antidote to the American ideal, which most commentators at the time viewed as an inherently weak, fragmented, and unaccountable system of government (Gerring and Thacker, 2008, pp. 10-12). For supporters

of the Westminster tradition, good government could only be achieved through the “consolidation of political power within the framework of multiparty democratic elections” (*Ibid.*). The operational features of centralism thus invoked several distinctive features. Centralist governments are unitary, rather than federalist, states; they rely on parliamentary, rather than presidential modes of governance; they depend upon strong and cohesive parties; representation is ensured through single-member districts or preferential voting schemes; and they rely upon an unwritten (i.e., flexible or adaptable) constitution (*Ibid.*).

Left in its Westminster form however, the centralist proposition can just as well tend towards the concentration of power, opportunities for strategic collusion, the ability to obscure the legitimacy of government actions, and an unyielding drive to satisfy the parochial interests of smaller though politically rewarding districts (V. Ostrom, 1997). As discussed further below, there are strong reasons to question the effectiveness and Canadian parliamentary system of government, whether at the federal or provincial levels. What distinguishes Gerring and Thacker’s (2008, pp. 15-23) claim that unitary systems of government can potentially yield superior outcomes rests on essentially two propositions. First, political institutions need to be *inclusive*, and thus reach out to all interests, ideas, and identities; and second, the need to be *authoritative*, in that “they must provide an effective mechanism for reaching agreement and implementing that agreement.” The gist of their argument in favour of what they call *centripetalism* thus relies on the extent to which political institutions: 1) are unitary, wherein constitutional powers lie in the hands of the center, and may be delegated or retrieved from sub-national units “without altering the fundamental rules of the game;” 2) rely upon a parliamentary system of governance, “in which the executive (the prime minister and cabinet: collectively, ‘the government’) is chosen by, and responsible to, an elective body (the legislature), thus creating a single locus of sovereignty at the national level;” and 3) use a closed-listed form of proportional representation, thus providing “an electoral system in which each district is multimember, each party nominates a slate of candidates (the list), and parties control the nomination process (it is closed),” thus avoiding the pitfalls of parochialism, the vagaries of popular opinion, and the tendency towards a disproportionate balance of power, rather than proportionate numerical majorities of the

whole.³³ The extent to which these constitutional arrangements help improve the provision of public goods depends on strong party government (relatively centralized and ideologically coherent groups), effective conflict mediation processes, and productive policy coordination mechanisms.

By contrast, the alternative expounded by Locke ([1691] 1824), Montesquieu ([1748] 1960), as well as Hamilton, Madison and Jay ([1788] 2008), builds upon a contractarian view of rulership, wherein the prerogatives of government are exercised by an assembly of citizens on the basis of mutually agreed upon terms and conditions. For citizens to rule by assembly, prior agreement must be reached on the rules applicable to collective decision-making, the distribution of power, and the very exercise of power. In essence, a contractual agreement, or constitution, must be established. To make such an agreement binding and enforceable – such that no one may exercise unlimited authority, constitutional provisions should: 1) assign certain unalienable rights to citizens, and thus impose limits on the actions of governments; and 2) divide the prerogatives of rulership into opposite and equilibrating forces, such that rule-making, rule-applying, and rule-enforcing functions of government are nested in different branches, thus limiting the powers that any one person or group can accumulate (V. Ostrom, 2008, pp. 13-14). Among other things,³⁴ constitutional government associated with decentralism implies limited government; the existence of multiple equilibrating forces and veto capabilities that can be used to constrain the “leviathan-like proclivities of government” (Buchanan, [1979] 1999: 58); the separation of powers; and a strong judiciary. Emphasis is placed upon sharing or diffusion of power, rather than the concentration of power (Gerring and Thacker, 2008, p. 5; see also V. Ostrom, 2008).

The theory of decentralism therefore, has two distinct “axioms, one pertaining to horizontal divisions (separate powers) and the other pertaining to vertical divisions (federalism)” (*Ibid.*). And it is rooted in two fundamentally distinct schools of thought. There is what Gerring and Thacker (*Ibid.*) refer to as “the dominant strand,” supported by the likes

³³ Without the possibility of proportional representation, argued Mill (Arrow, 1951; Riker, 1982), “there is not equal government, but a government of inequality and privilege: one part of the people rule over the rest;... For there is not equal suffrage where every single individual does not count for as much as any other single individual in the community... Democracy, thus constituted, does not even attain its ostensible object, that of giving the powers of government in all cases to the numerical majority. It does something very different: it gives them to a majority of the majority; who may be, and often are, but a minority of the whole.

³⁴ For an extensive list of characteristics and critique of decentralism, see Gerring and Thacker (2008).

of “Blackstone, Montesquieu, and Madison” and which “sees in decentralized institutions a mechanism to prevent [or moderate] direct popular control.” The other, more radical strand, “associated with Paine, Rousseau, and others [such as Tocqueville]... sees in decentralized power a mechanism for bringing government closer to the people” (*Ibid.*, p. 6). In either case, both share a common distrust of government – a trait that is likewise shared by most scholars in the public choice tradition (e.g., James Buchanan, Vincent Ostrom, Friedrich von Hayek, Milton Friedman and Gordon Tullock to name but a few).

Of the two formulations, the literature on common-pool resources has clearly been slanted in favour of decentralised approaches. While non-cooperative game theory (e.g., prisoner’s dilemma) and metaphors such as ‘the tragedy of the commons’ have reinvigorated calls for state-centric common-pool resources management in the last half century (Gordon, 1954; Hardin, 1968; Hessing *et al.*, 2005), such strategies have not, as a general rule, produced sustainable outcomes over time, nor have they improved conditions for locally adapted resource users. As scholarship associated with the Bloomington research programme shows, “any single, comprehensive set of formal rule and laws intended to govern a large expanse of territory, containing diverse ecological niches is bound to fail in many of the areas where it is applied” (E. Ostrom, quoted in Aligica and Boettke, 2009, p.153). In short, empirical research simply “does not support the idea that a central government could solve all resource problems for a large region with simple, top down directives” (*Ibid*, p.152). Though there are no panaceas for sustainability, nor institutions that yield universally superior outcomes (Dietz *et al.*, 2003; E. Ostrom, 2005, 2007), the body of evidence supporting the notion that communities, endowed with the capacity to make collective choice rights, tend to achieve greater levels of sustainability (e.g., E. Ostrom, 1990; NRC, 2002; Poteete *et al.*, 2010) has led to increasing demands for community-led approaches, including decentralization and state-level recognition of local resource rights ((e.g., Larson *et al.*, 2010; E. Ostrom *et al.*, 1999; Ribot and Larson, 2005).

However, the message conveyed by the works of Gerring and Thacker, Vincent and Elinor Ostrom, or James Buchanan seems clear. It is the working out of effective constitutional arrangements and the consequent performance of governments that need to be considered, not whether a state is centralist or decentralist. Whether unitary or federalist, the

performance of a state government tends to increase when democratic institutions favour proportional representation, inclusive government caucuses, strong and legitimate authority, and open deliberative processes (Gerring and Thacker, 2008). On the other hand, systems that concentrate the prerogatives of rulership in the hands of a relative few, with little or no constitutional constraints or safeguard, will tend to limit the capacity of a polity to affect change and achieve sustainable outcomes, regardless of the nature of the regime itself (see Chapter II). For in the absence of well-defined and enforceable rules that either sets limits on the actions of government, increases accountability, or conditions what can and cannot be done, “rulers are likely to shirk their responsibilities” and use the privilege of their position to extract greater benefits for themselves or their constituencies (McGinnis, 2000, p. 8).

While theoretical models of good government provide useful standards for comparing the institutional design of various political experiments and for developing useful predictions on the expected benefits of different arrangements, they are not a substitute for empirical inquiry. Whether and how theoretical models apply to particularised circumstance requires careful consideration of the nature of the regime in place and a clear understanding of its evolution (Steinmo, 2010). Since the performance of constitutional choice rules can only be assessed over time (Buchanan, [1981] 2001), it follows that to understand the strengths and weaknesses of a political institution, one needs to appreciate “the forces and dynamics that have shaped” the experiment under consideration, to “both [explain] adaptations and [understand] the consequences of those adaptations” (Blyth *et al.*, 2011, p. 303). For in a world of increasing complexity and rising social and environmental dilemmas, the challenge that communities and governments will increasingly face is that of change. Understanding the bottlenecks and adaptations that allow communities to overcome the dilemmas they face and maintain social-ecological parameters within bounds will require renewed interest in the constitutional level of analysis.

3.2.7 Improving Social-Ecological Outcomes

Achieving sustainable outcomes in complex social-ecological systems where human-environment interactions necessarily differ across social, political, and biophysical geographies lies at the heart of modern-day environmental dilemmas. Since social-ecological linkages are multi-variant in nature, then addressing complexity and variations in the

environment should be met with covariant responses in the behaviours of individuals and their communities. Following Ashby's (1956) *law of requisite variety*, Vincent Ostrom (1997, p. 121) posits that "it takes access to potential variety to respond to variety in a way that maintains some essential value or values within limits." In short, maintaining social and biological diversity requires access to institutional diversity. This implies generating access to variable adaptive strategies, which in turn suggests that to be effective, sustainable resource governance has to be adapted to the time and place exigencies of social-ecological interactions. In other terms, crafting rule-ordered relationships that can address the adaptive contingencies of complex social and ecological environments requires shared communities of understanding that are able to draw upon local knowledge and experience to devise locally adapted and socially appropriate solutions. In the simple though eloquent words of Wendell Berry (2012, p. 91), we must, "[b]y way of correction,... make local, locally adapted economies, based on local nature, local sunlight, local intelligence, and local work." And yet, recognizing that the scale and scope of our social-environmental dilemmas far exceed all known historical, biophysical and jurisdictional boundaries, solving the myriad issues that humanity now faces also hinges critically on creating rule-ordered relationships that support the human capacity to draw upon experience, reflection and choice to devise alternative rule arrangements for coping with collective action problems at multiple scales of aggregation (V. Ostrom, [1999] 2012). In considering the worth of centralist and decentralist perspectives exposed above, it seems somewhat self evident that either/or choices, relative to the rules that govern our relationships, will not provide the soluble solutions that polities will need to develop in order to address the problems they face in a world of increasing interdependencies.

In order to maintain values within limits, in complex multivariate environments, political institutions will need to develop "error-correcting procedures in the organisation of decision-making processes" (*Ibid.*, p.147). That is, the development of organisational and institutional mechanisms by which "diverse forms of analysis can be mobilized and where each form of analysis can be subjected to the critical scrutiny of other analysts and decision-makers" (V. Ostrom, 1973, quoted in Aligica and Boettke, 2011, p. 43). Error-correcting procedures thus involve the use of mechanisms that can facilitate, rather than stifle, learning

and the development of adaptive rule arrangements (V. Ostrom, 1997, p. 147; Vanberg and Buchanan, 1994, p. 191). Functional deliberative processes,³⁵ of the kind proposed by Gerring and Thacker (2008), offer a strong step in the right direction, as do the need inclusive and authoritative decision-making structures. In opposition (or rather juxtaposition), polycentric forms of governance offer another type of purposive institutional structure that has been associated with positive social-ecological outcomes (E. Ostrom, 2010). Composed of dispersed, independent, and overlapping systems of administration, polycentricity has the potential of yielding greater institutional flexibility and adaptability (V. Ostrom and Ostrom, [1971] 2000; V. Ostrom *et al.*, 1961). In such systems, different competitive forms of collective organizations, capable of taxing and regulating the use of collective-consumption goods and ensuring the production of valued public goods, can provide viable alternatives to hierarchical bureaucracies (V. Ostrom, [2007] 2012). So called “quasi-market arrangements” can thus shift the burden of complexity associated with highly structured hierarchical organisations to “networks of inter-organisational arrangements” that are more adaptive and less encumbered by the problems inherent in larger forms of association (*Ibid.*, pp. 598-599). Instruments of this nature are increasingly being observed and discussed in areas related to the environment and natural resource management, as communities, private sector organizations and public service providers develop alternative arrangements for solving environmental problems at various scales of interaction (Delmas and Young, 2009; Lemos and Agrawal, 2006).

While some argue that recourse to a single center of authority for dealing with the aggregate but distinct problems of society are bound to fail (E. Ostrom, 2005, 2010; V. Ostrom, [1987] 2012, [1991] 2012, [1999] 2012), others point out that centralised systems tend to outperform decentralist institutions on nearly every front (Gerring and Thacker, 2008). In truth it seems, both perspectives are right and both approaches are needed to confront the challenges that societies face. For in the end, both argue for the need to have

³⁵ Five assumptions underly the effectiveness of deliberative processes (Gerring and Thacker, 2008, pp. 173-174): 1) people within a political community are endowed with equal moral value; 2) deliberation focuses on the needs and desires of the whole community, rather than on particular interests or ideologies; 3) a wide variety of goals may be relevant to the consideration of any particular policy issue; 4) the process of consideration is truly deliberative – that is, logical (not internally contradictory), evidence-based (wherever relevant), and disinterested (not merely a reflection of one own interests); and 5) the process of deliberation is oriented toward a consideration of consequences. Only by considering alternative outcomes can we hope to reach agreement on how to prioritize, and hence choose among alternative courses of action.

institutions that are responsive to the needs and aspirations of commonwealths, whether local, regional, or global. Devising alternative arrangements however, requires an explicit understanding of the constitutional level of analysis, the need for normative inquiry, and access to the constitutional and collective choice arenas wherein such decisions are made. As Vincent Ostrom (1997) argues, democratic polities will remain viable constitutional experiments so long as citizens recognize, understand and sustain Alexander Hamilton's reflexive inquiry on the capacity of individuals to establish "good government from reflection and choice" and Tocqueville's conditional response that such a challenge can only be met by a democratic literacy rooted in "the art [and science] of association."

3.3 Constitutional Provisions of Canadian Provinces

The preceding overview of the theoretical implications of constitutional choice for the administration of public affairs suggests that the nature of social order can have profound effects on the ability of a given political economic structure to solve collective action problems and engage the creative potential of citizens to find alternatives and Pareto better solutions to the dilemmas they face. Understanding how Canadian provincial governments compare to the theoretical alternatives is necessary for developing a testable hypothesis of the influence of the rule-ordered relationships on the use and management of public forest resources. This section provides an overview of the key constitutional features of Canadian provincial governments as they apply to Québec. Details related to the actual evolution of Québec's constitutional framework are explored in the subsequent chapters. The intent here is to capture the essence of social order in the province, particularly as it applies to the dominant role of the executive in the administration of public affairs. With the overarching theoretical framework of the thesis thus established, the chapter concludes with a brief inquiry into the constitutional dimensions of natural resources use in Québec, particularly as it applies to public forests, and the consequences that may be expected to flow from such a situation.

3.3.1 Executive Government

The government of Québec is derived from, and structured according to, the Westminster Parliamentary system, and the long-standing customs, traditions and conventions that have informed British democratic institutions. Executive and legislative functions are therefore fused and parliament reigns supreme over the powers conferred to it through the British North American Act of 1867, and the subsequent decisions of the Judicial Committee of the Privy Council (until 1949), the Supreme Court of Canada (after 1949), and the constitutional amendments instituted in the wake of patriation in 1982. Hence, other than issues and disputes related to the jurisdictional boundaries of legislative powers between federal and provincial governments, the authority of the Québec's National Assembly (past and present) is not bounded by any external source of power, other than its own legislation and the confines of its legislative authority, as defined by the constitution (Barr, 2006).³⁶ In effect, the British constitutional principle of the unlimited sovereignty of the legislature has had the effect of reducing the role of the courts to that of a constitutional arbiter between federal and provincial powers (Mallory, [1984] 2011, p. 8). Consequently, the government of Québec is best understood as a unitary government within a federated state. It is centralized and centralizing by nature, delegating only those powers and administrative functions of its own choosing to regional or local units, while retaining the authority to change, modify or abrogate past decisions and legislation as required.³⁷

As with other Canadian provincial jurisdictions, cabinet (i.e., the executive council or council of ministers in Québec) is the pivotal and centripetal force of provincial politics (Bernier *et al.*, 2005; Dunn, 2006). Cabinet is formed by ministers appointed from the elected members of the legislature, who are both individually and collectively responsible and accountable to Parliament (customarily referred as the National Assembly in Québec) and together with the Lieutenant Governor, it forms the government. Consequently, government may retain power for only as long as it maintains the confidence of the Assembly (White, 2006, p. 256, see Responsible Government below). However, like the Westminster model

³⁶ Barr (2006, p. 279) emphasizes this point even more strongly by adding that "Canadian provincial court systems are not only disengaged from the central processes of provincial politics, [they] are [also] disengaged to a greater extent than the courts in other federal systems."

³⁷ Following Dicey ([1885] 1915, p. 249): "Parliament is, from a merely legal point of view, the absolute sovereign of the British Empire, since every Act of Parliament is binding on every Court throughout the British dominions, and no rule, whether of morality or of law, which contravenes an Act of Parliament binds any Court throughout the realm."

upon which it is based, adherence to the principle of the separation of powers, in terms of the executive, legislative, and judicial functions of government, is figurative only. For the executive Council is “the” principle decision-making body of government. It is the executive that defines the policy agenda, administers the state, applies the law, adopts rules (orders-in-council) and regulations, defines the bills that will be submitted to the National Assembly for its consideration and approval, appoints senior officials and the heads of public corporations or organizations, and supervises the actions of ministries, including the allocation and distribution of resources. Although elected members may introduce bills or amendments to bills for legislative consideration, as per Section 90 of the Constitution Act (1867), they must first obtain approval from the Lieutenant-Governor (i.e., the premier), which in political parlance implies that few private members’ bills ever get introduced – a situation that is further restricted by the fact that only ministers can bring forward supply or money bills, since “private members’ bills may neither raise taxes nor directly allocate government spending” (White, 2006, p. 258). Hence, not only is “power concentrated in the cabinet” but also the whole apparatus of government is itself “*executive-dominated*” (White, 2006, p. 257 emphasis in original). Though the “style” of the executive may have changed over the decades, from the “unaided” and relatively simple cabinet structure to the more complex “institutionalized cabinet” and its more diversified decision-making bodies and standing committees (Dunn, 2006; see also Bernier *et al.*, 2005), power has consistently migrated closer to the centre, not away from it, thus broadening the executive’s span-of-control and decision-making authority over the functions and departments of government (*Ibid.*, p. 231). Key to understanding the importance of the centralizing tendencies of provincial (and federal) politics lies in the notion that “cabinet government, under the Westminster system,” implies “collective government” (White, 2006, pp. 256-257). In other words, “cabinet solidarity” is not simply a survival strategy, “it is a constitutional principle. It means that all ministers are responsible for and must support government decisions regardless of whether they personally favour them” (*Ibid.*). This implies party rule, a steadfast commitment to official party script, and strict discipline within the ranks of the cabinet and caucus backbenchers. Individual liberty, freedom of expression, and independent voting are not acceptable patterns of behaviour, for the unity of power ultimately depends on the unity of command.

At the head of the executive is the Prime Minister (or Premier) who has the sole ability to define the contours of government, appoint line ministers, and set the policy priorities of government. The Premier is, in effect, the “architect of the general machinery of the central executive” (Dunn, 2006, p. 217). The organization of the executive, the distribution of patronage, and the ability to make or break political careers all lie in his or her hands (*Ibid.*). And yet, none of these powers exist in a strict constitutional sense (Dunn, 2006, p. 215). All have been derived from, and established through, the conventions and exigencies of the British Parliamentary system from whence the power and legitimacy of the executive in Canadian governments originates (Savoie, 2010). Put differently, the Canadian constitution is customary, and needs to be interpreted in light of conventions and past judicial decisions (Mallory, [1984] 2011, p. 8). As in the Westminster tradition, it relies on unwritten “customs, practices, maxims, or precepts” that are neither recognized nor enforceable by the Courts (Dicey, [1915] 1982, p. 244). These unwritten rules are known as constitutional conventions, and in the parliamentary tradition, they are used to determine how “the discretionary powers of the Crown ought to be exercised” (*Ibid.*, p. 246). In other words, they determine “every kind of action which can legally be taken by the Crown, or by its servants, without the necessity for applying to Parliament for new statutory authority” (*Ibid.*, p. 247). However, since conventions are not legally enforceable or binding, governments have been apt to interpret such “rules” to their advantage and thus expand the boundaries of their prerogatives to suit their political and administrative motives (Mallory, [1984] 2011; Hicks, 2010). At the federal level, the indeterminate nature of such conventions have essentially “allowed the Prime Minister to reshape relationships in government almost at will—as, for example, turning cabinet into little more than a focus group for his benefit and the benefit of his advisors” (Savoie, 2010, pp. 172-173; Hicks, 2010). Similar trends have been observed at the provincial level, where executive councils are becoming increasingly premier-centered (Bernier *et al.*, 2005). The growth of a presidential-like system without the institutional safeguards of a presidential system has been observed as a worrying trend amongst political and constitutional scholars for several decades (e.g., Dunn, 1990; Hicks, 2010; Mallory, [1984] 2011; Savoie, 2010).

3.3.2 Responsible Government

The most fundamental constitutional convention of the Canadian political system lies in the principle of responsible government, which was progressively instituted in British North American colonies during the 1840s (Mallory, [1974] 2011; Russell, 2010; Savoie, 2010; David E. Smith, 2006; White, 2006). Responsible government implies that executive powers, which are formally vested in the Crown, must be placed under the direction (i.e., council) of elected members of the legislature that hold the confidence, and thus the majority, of Parliament. It is the underlying democratic principle of the Westminster system and by extension, that of Canada as well. However, as with all constitutional conventions, there exists no legally accepted definition of responsible government, nor is it mentioned in the Constitution Act of 1867 and the amendments and judicial decisions that followed. Ministerial responsibility implies that elected or appointed officials are ultimately responsible for what they do and therefore accountable to the legislature and the public itself (Dunn, 1988; Smith, 2006). Under responsible government, ministers must bear the full weight of political and legal responsibility for their actions as well as the conduct of those senior officials who report to them. Any breach of trust, violation of ethics or other serious mistake must be met with the resignation of the appointed minister. Yet, as recognized by all students of the British parliamentary system, application of the ministerial responsibility doctrine has so far proven difficult (Dunn, 2006, p. 222). In fact, responsible government “does not mean... that any government defeat is cause for an election or for the government to resign.” It merely suggests that government may “suffer nothing more than political embarrassment” (White, 2006, p. 256; see also Mallory, [1974] 2011, p. 23).

Constitutional scholar James Mallory goes even further in his criticism of the system. The Westminster model that was used to construct the Canadian constitution, Mallory adds ([1974] 2011, p. 22), is essentially “a product of nineteenth-century England, and as such, it is not a democratic constitution, but an oligarchic one. The center of authority in the system was not the people, but the legislature, and a government which was able to control the legislature could govern without serious interference between elections.” The reason for this, Mallory (*Ibid.*) contends, is that Canada developed a party system along with an elitist system of representation that provides “little or no opportunity for popular participation in

government" (see also Dunn, 1990; Mallory [1984] 2011; Savoie, 2010; Smith, 1991; Sproule-Jones, 1984; White, 2006). The citizenry is in fact far from the real decisions of government. As Mallory puts it, the "cabinet system provides strong institutional barriers to the development of more democratic ways of doing things" ([1974] 2011, p. 22). Other than the scrutiny of the legislature (i.e., opposition), the press, and the threat of public discontent or electoral defeat, there are no countervailing forces outside the reach of cabinet that can be used to restrain the legislative actions, policies and spending measures of government, as long as such efforts do not intrude on the contested constitutional playing field of federal-provincial politics or the sensibilities of the electorate. Hence, all provincial legislatures, White (2006, p. 257) argues, share a common set of characteristics that ultimately weakens their ability to enforce the idea of responsible government, including: cabinet control over policy and legislative action; adversarial tensions between government and opposition with minimal private member involvement in policy-making; asymmetries in the distribution of resources backing the cabinet (permanent bureaucracy and access to funds) versus those available to private members or the opposition; and "debilitating restrictions on the powers of committees to determine public policy or to control government activities." Add to this the subjugation of parliamentary opposition under majority rule; the "failure of the public to understand how the system should work" (Mallory, [1974] 2011, p. 22); the use of the governor's reserve powers (or Lieutenant-Governor) to advantage the executive over the legislative branch (Hicks, 2010); the consistent appropriation of Crown prerogatives by provincial executives without any formal recognition of such authority in either the Canadian or provincial constitutions (Smith, 1991, p. 460), the fact that the number of electoral divisions is only loosely based on the number of eligible voters and that governments can, and often do, win majority positions with less than fifty percent of the electoral vote (Siaroff, 2006), and the picture that begins to emerge is anything but the democratic ideal that most citizens in Canada arguably aspire to. Once in power, majority governments have little to fear from opposition and the threat of no confidence is but a covenant without the sword, as Hobbes would put it (Mallory, [1974] 2011, [1984] 2011; Smith, 1991).

Hence, even though provincial legislatures now have access to a wider range of resources than they did in the past, they have not "reversed the underlying cabinet domination

of provincial [governments] in any fundamental way" (White, 2006, p. 273). The idea of responsible government can help legislatures "set the parameters of acceptable behaviour ...by requiring public office holders to explain and defend their actions before a skeptical opposition" (Thomas, 2010, p. 169), but they can do little to change the underlying dynamics of a system, which opposition members have historically been inclined to support. As White (2006, p. 272) underscores, "[i]f provincial legislatures...seem impervious to genuine reform," it is "because cabinets are notoriously unwilling to give up any of their extensive powers and because too many members are unwilling or unable to imagine alternatives to the prevailing political order."

However, "[n]o society... is immune to the strategic opportunism and moral hazards engendered by the Faustian bargain" that provides "instruments of evil to realize the common good...[The] critical issue ...is whether the principles of rule-ordered relationships can be extended to place limits on those who exercise governmental prerogatives, by recourse to a constitutional level of choice" (V. Ostrom, 1997, p. 141). Limiting opportunism in systems that grant a monopoly over the prerogatives of rulership requires lawful institutional arrangements that are beyond the reach of governments, citizens that are aware of the normative bounds of authority, and low cost monitoring, sanctioning, and adjudication procedures that can help enforce such rules (*Ibid.*; see also Hayek, 1979, p. 129). The overall structure of political order in Canada may have gotten more complex since the early eighteenth hundreds, but the extent to which these institutions have evolved in any way that can help sustain more productive rule-ordered relationships or support communities at various scales of aggregation to cope with the exigencies of complex social-ecological problems are questions worthy of some reflection.

3.4 Conclusion: The Special Case of Natural Resources

In light of the preceding sections, it is worth restating here the principle argument of this thesis, namely that the struggle to develop and apply more sustainable patterns of forest resource use in Québec is fundamentally tied to the constitution of rule-ordered relationships within the province. Such a hypothesis, though bold, is not unfounded. As this chapter shows, the theoretical underpinnings of constitutional choice rules and the consequences that might be expected to flow from different models of social order are substantial, and neatly affect the

ability of communities to find durable solutions to problematic situations, including complex social-ecological problems. Understanding how realms of ideas inform choices that are constitutive of rule-ordered relationships in human societies is crucial (V. Ostrom, [1991] 2012). “Diagnostic assessments” of “problematical situations” in human relationships requires “a critical awareness about how social realities get constituted in ...societies” as well as an ability to either draw on reflection and choice to derive theories applicable to alternative rule-ordered arrangements, or access to alternative models of social order that can be used as intellectual resources to critically scrutinize the “sources of perceived difficulties” in a given social order (*Ibid.*, pp. 290-291; see also V. Ostrom, 1997). Institutional choices should thus be regarded as theories informed by ideas and knowledge, or shared communities of understanding, that express tentative causal relationships between institutional facts and observable realities (i.e., deeds, actions and outcomes in social-ecological systems). By providing “the basic rules for political order and political decision-making” (Buchanan, [1981] 2001, p. 44), constitutional choices affect not only the rules of the game but its very nature (V. Ostrom, [1979] 2009, p. 15). They are the governing structures of society that frame the conduct of government (V. Ostrom [1982] 1999), define the rights and freedoms of a polity, and provide assurances for adjudication and due process (Thomas, 2010, p. 169).

Awareness of the importance of the constitutional level of analysis for the diagnosis of problematic situations in rule-ordered relationships and the consequences that can be predicted to follow from alternative arrangements provides a critical framework for assessing the nature of rule-ordered arrangements within the Canadian provincial context. As the following chapters intend to demonstrate, the path of forest resource use in Québec, the problems that succeeding generations have had to confront, and the challenges that can be predicted to occur in the future – all directly or indirectly relate to the constitutional choices that were used to establish the terms and conditions of natural resource governance in the Province.

Of particular significance to this thesis is the constitutional convention that informed the nature of the relationship between the executive government of Québec and the province’s natural resources. The right to use, manage, allocate and alienate natural resources within the Canadian provincial context is derived from a residual prerogative of the Crown

that is constitutive of a “discretionary authority” granted to “the executive government” to lawfully act “without the authority of [an] Act of Parliament” (Dicey, [1915] 1982, pp. 247-248). Residual prerogatives refer to the “discretionary power left at any moment in the hands of the Crown, whether such power, is in fact exercised by the [Sovereign] himself or by his Ministers” (*Ibid.*). As a convention of the constitution, that is, a “rule for governing the exercise of prerogatives” (*Ibid.*), the right to use and dispose of Québec’s natural resource assets was granted on the condition that revenue should be used to defray the costs of government and support the general interests of the province (see Chapters IV and V). As long as resources are exploited for the benefit of the province (however defined), the right to determine the terms and conditions of natural resource governance in Québec essentially constitutes an executive function.³⁸ Whether the government chooses to consult the population or not, invite the input of members of the legislature through the instruments of parliamentary or legislative committees, and whether it decides to actually use (or not) such information are all subject to the discretionary authority of cabinet. In short, by virtue of the constitutional convention principle, the executive council in Québec (as in other provincial jurisdictions) holds an exclusive monopoly position over what Ostrom calls the “instrumentalities of collective action” (1997, p. 111). And as Hicks (2010, p. 25) reminds us, “the only means of enforcing constitutional conventions in the absence of access to a court are extra-legal: pressure of public opinion, passive and active resistance, and ultimately revolution.” Regardless of whether the issue pertains to mines, minerals, timber, fish, water, hydropower, inshore oil and gas, or the public investments that are made to support exploitive and extractive industries, and the operation of public corporations – all decisions rest in the hands of an executive government whose chief constraint is primarily electoral.

The constitutional choices that inform our body politic and the sovereign rights of the executive to direct the administration of public forests in accordance with its own prerogatives are issues that have so far solicited very little interests from social scientists. But without a theory of constitutional choice, efforts to explicate institutional change and the

³⁸ In virtue of Sections 91(2) and 91(12) of the BNA Act (1867), the Federal government maintained rights over trade and commerce and fisheries respectively, and following a 1967 Supreme Court Decision, it gained the rights offshore resources, including oil and gas. Since then, Section 92A of the Constitution Act, 1982, provides greater flexibility to the provinces, in terms of their ability to tax and negotiate trade agreements relevant to their natural resources. However, none of these fundamentally changes the ownership of land and resources (Section 109) and the ability of provincial legislatures to determine the management and sale of natural resources on both public and private lands (Sections 92(5) and 92(13)).

factors that affect collective-action in social-ecological systems can only lead to partial accounts of problematical situations. The evaluative concern of constitutional choice rests with the need to consider whether the results produced by a given set of decision rules yield end-state patterns that may be considered desirable from the standpoint of normative beliefs. If we assume that politically generated results depend upon the rules that constrain political action, then the positive analysis of the working properties of constitutional order acquires a more fundamental character for long term reform than does the typical policy advise of alternative arrangements under an existing framework of social order. The search for a better fit between existing rule-ordered relationships and the exigencies of diverse multivariate social-ecological environments clearly supports the need for a new science of politics, grounded in the positive analysis of normative constraints. One must indeed look on all institutions as potentially improvable (Buchanan [1981] 2001, p. 49; [1990] 1999, pp. 383-384).

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PART II: FORESTS AND THE ORIGINS OF THE CANADIAN CONSTITUTIONAL EXPERIMENT³⁹

³⁹ For a detailed summary of the history of common law, as it pertains to the Crown's entitlements to land as well as casual and territorial revenues, see La Forest (1969) and Martin (1920); For a discussion on forestry on public lands from the medieval period to the modern era, particularly as it applies to North American colonies, see Scott (2008, Ch. 11).

GENERAL INTRODUCTION

With the Treaty of Paris of 1763, the King of France⁴⁰ rightfully ceded “*the sovereignty, property, possession, and all rights acquired by treaty*” to the “*countries, lands, islands, places, coasts, and their inhabitants*” – including the territory known as “Canada” – to the Crown of Great Britain. The colonial character of Québec and the prerogative rights of the English Crown over all unappropriated lands, timber, fisheries, and mineral wealth were subsequently confirmed by the Royal Proclamation of 1763, the Québec Act (1774) and the King’s instructions to the appointed governors of the province of Québec/Lower Canada until the Union act of 1840. In effect, the Crown’s royal prerogative over territories acquired by cession or conquest gave the Sovereign unimpeded authority over all ungranted lands and entitlement to the territorial and casual revenues derived therefrom.⁴¹

While parliamentary appropriation of the Sovereign’s ordinary (casual & territorial) and hereditary (excise on beer, cider, and spirits)⁴² revenues in exchange of a civil list (i.e., civil government) was fully instituted in England by George III,⁴³ comparable measures were not adopted in the colonies until William IV⁴⁴ and the accession of Queen Victoria.⁴⁵ In Canada, control over the Crown’s colonial revenues remained firmly in the hands of the British Parliament (through the appointed Governor-in-Council) until 1840. With the passing of the Union Act⁴⁶, the newly formed Province of Canada gained control over nearly all the consolidated revenues of Lower and Upper Canada (section 50) in exchange of a civil list (sections 52 and 54) and payment of an annual sum of £75,000 to the Crown to defray the salaries of the governor, lieutenant governor, judges, and other government officials. However, the Legislative Assembly of Canada quickly contested the partial surrender of the

⁴⁰ As in the case of the English Crown, the King of France exercised prerogative rights over all ungranted lands and resources prior to the conquest of 1759 and capitulation of Montreal in 1760. See *St. Catherine's Milling and Lumber Co. v. The Queen* (1888) 14 App. Cas. 46 (J.C.P.C.); Whyte ([1899] 1907); Bouffard, (1921).

⁴¹ The constitutional position of the Sovereign and prerogative rights over conquered territories was made clear in *Campbell v. Hall* (1774) 1 Cowp. 204, EC vol 98, 848, EC vol 98, 1045. Such rights over territorial and casual revenues were reiterated in the Québec Revenue Act: (1774) 14 Geo III, c. 88, s. VI (Imp.).

⁴² An excise granted to the king, his heirs, and successors forever: (1660), 12 Car. II, c.24 (Imp.).

⁴³ (1760), 1 Geo.III, c.1 (Imp.).

⁴⁴ (1831), 1 Will. IV, c.25 (Imp.).

⁴⁵ (1837), 1 & 2 Vict., c.2 (Imp.).

⁴⁶ (1840), 3 & 4 Vict., c.35 (Imp.).

Queen's revenues and in 1846, the province was granted full control over all territorial and casual revenues.⁴⁷ By 1852, any lingering doubt over the right of the colonial government to the moneys arising from the sale or disposition of colonial Crown lands was finally put to rest with the passing of Crown Revenues Act,⁴⁸ thus ensuring that all Crown revenues could be used by the colonies for public purposes. With these final Acts, and the passing of the British North American Act⁴⁹ and in particular sections 92(5), 102, 109 and 126:

*"the entire control, management, and disposition of the Crown lands, and the proceeds of the provincial public domain, and casual revenues arising in these provinces were confided to the Executive administration of the provincial government and to the legislative action of the provincial legislatures so that Crown lands, though standing in the name of the Queen, were with their accessories and incidents, to all intents and purposes the public property of the respective provinces in which they were situate."*⁵⁰

Hence, the struggle to control the revenues arising from the sale or leasing of Québec's public (Crown) lands and natural resources lies at the heart of Canada's constitutional history and the subsequent development of centralized resource governance institutions in each of the provinces. The following two chapters (VI and V) consider how these constitutional arrangements came to affect the evolution of forest resource institutions in Québec during the period of the representative government (1763-1839) and following the unification of Upper and Lower Canada, between 1840-1866).

⁴⁷ (1846), 9 Vict., c.114 (Can.).

⁴⁸ (1852), 15 & 16 Vict., c.39 (Imp.).

⁴⁹ (1867), 30 & 31 Vict., c.3 (Imp.).

⁵⁰ Comments of Ritchie C.J. in *Mercer v. Attorney-General of Ontario* [(1903) A.C. 73, p. 79]. It should be noted that the term 'public property' has a specific meaning in the Canadian context. As Lord Watson put it in his ruling over *St. Catherine's Milling & Lumber Co. v. The Queen* [(1889), 14 A.C. 46, p. 56]: "wherever public land with its incidents is described as 'the property of' or as 'belonging to' the Dominion or a Province, these expressions merely import that the right to its beneficial use, or to its proceeds, has been appropriated to the Dominion or the Province, as the case may be, and is subject to the control of its legislature, the land itself being vested in the Crown."

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CHAPTER IV: EARLY FOREST RESOURCE INSTITUTIONS IN QUÉBEC

4.1 Introduction

The development of the timber trade in Eastern Canada has been thoroughly discussed by some of Canada's most prominent historians and political scientists. To be sure, the exhaustive works of A.M.R. Lower (Lower, 1936ch. 13,14 and pp. 422-434 in particular; 1938, 1973), Creighton (1937), Gillis and Roach (1986), and Nelles (1974), to name but a few, certainly limit the need for further inquiry. However, one fundamental story remains to be told. As Creighton (1937) rightly perceived, the development of early forest resource institutions in Canada is crucially tied to the country's constitutional foundations. And in order to appreciate how and why forest resource institutions in Québec and elsewhere in Canada developed the way they did, one needs to understand how constitutional choice rules and collective-choice rights over natural resource assets jointly evolved in Lower and Upper Canada at the onset of the 19th century. This chapter investigates the linkages between early forest resource institutions and the development of centralized (i.e., executive-dominated) decision-making authority in the province.

Although the commercial exploitation of Québec's forests began during the French colonial period, somewhere around the middle of the 17th century (Fauteux, 1927, pp. 172-173),⁵¹ the high costs of transatlantic shipping made the expansion of the trade prohibitive and until the end of the 18th century, its development remained relatively marginal.⁵² Consequently, the onset of the British regime is used here as the point of entry for understanding the development of early forest resource institutions and the influence of

⁵¹ The earliest known set of rules regarding forests in Québec was adopted on September 2, 1670. Intendant (i.e., governor) Talon sanctioned an ordinance declaring that all oaks, elm, beech and birch should be preserved until the King's master ship builders selected all the wood required for naval construction (see Fauteux, 1927, p. 230; Bouffard, 1921).

⁵² According to Lower (1973, p. 37), the manufacturing of potash, derived from the hardwoods cleared for land cultivation started in 1767 and by 1770, fifty tons or more were shipped annually to Great Britain. By 1771, 213,000 oak staves manufactured from timber harvested along lake Champlain was exported from Québec City, and English market quotations for Québec yellow pine (*Pinus Strobus*, or white pine as it is known today) began around the year 1770.

constitutional choice rules over their use and management. The chapter ends with a discussion on the consequences of the 1839 Report by Lord Durham and the breakdown of the Constitution Act of 1791, which in turn led to the unification of Lower and Upper Canada in 1840.

4.2 Laying the Foundation: Institutional Development Under British Rule

By the time New France was officially ceded to Britain in 1763, the basic institutional structure of what would eventually become Canada's defining approach to natural resource governance was already well established (Innis, [1930] 1999, pp. 390-391). Under French rule, the King's prerogative over territories and resources acquired by cession or conquest was absolute; land and resources were administered in the name of the King by the appointed Governor; appropriation rights were granted by way of charters or licences; and duties or taxes (i.e., ground rents) were imposed on those who held territorial or concessionary rights to specific resource assets (Bouffard, 1921, pp. 5-13; Innis [1930] 1999, pp. 106-109).⁵³ Further, since the prosecution of trade within the mercantile economies of the 17th and 18th centuries was channelled through monopolies in Europe (Ekelund and Tollison, 1984; McPherson, 2007) with agents in the New World that required access to large supplies of goods to subsidize the high costs of trans-Atlantic shipping, not to mention the need to control ever larger territories to counteract the effects of overexploitation and rent dissipation,⁵⁴ the formation of monopolies in Canada was as inevitable in the case of the fur trade (Innis, [1930] 1999) as it would later be for the timber and lumber trades of the 19th century (Lower, 1938, 1973).⁵⁵

Following the principles of the broad arrow policy (Albion, [1926] 1965; Scott, 2008)⁵⁶ and the system of naval reserves initiated under the French regime (White, [1899] 1907, pp. 148-154), the first colonial regulations to be enacted by the British parliament for the management of Québec's forests centered on the preservation of timber for the royal

⁵³ See also "Report of the Attorney General to Milnes" (1801) in Doughty and McArthur (1914, pp. 274-277).

⁵⁴ See Bouffard (1921, pp. 6-12). Examples of such monopolies include: "La compagnie des cents associés," "La Compagnie des Indes Occidentales," and later, the Hudson's Bay Company and the North-West Company.

⁵⁵ See McPherson (2007, p. 61) for an explanation of the monopolies granted to British subjects.

⁵⁶ Heraldic device used by the British imperial government to mark its property. The practice of marking trees intended for ship building, using three axe strikes that resembled an arrowhead and shaft, was initiated in the american colonies during the late 1600s and later adopted in the maritime provinces during th 1700s.

navy. As specified in the royal instructions handed to the appointed governors of the Province: the (i) waste lands⁵⁷ of the Crown were to be surveyed prior to any grant or sale; (ii) Crown reserves of pine and oak established in every township and in all territories where such timber should be found in abundance; (iii) the cutting or injuring of trees committed in trespass was punishable by law; and (iv) a license from the colonial government was required to operate a sawmill.⁵⁸ With minor changes, these instructions were reiterated for every succeeding Governor until the Union Act of 1840.⁵⁹

Prior to the renewal of hostilities between France and England in the last decade of the 18th century, the forests of Québec attracted little interest and whatever timber transited from the port of Québec City to England usually came from the Lake Champlain watershed between Upper New York State and Vermont (Lower, 1973, p. 37). As the winds of war spread across Europe in the mid 1790s, the price of Baltic timber rose sharply and with it, the incentive to exploit the vast reserves of Britain's North American colonies (*Ibid.*, pp. 46 & 52).

Nearly a decade after the British Parliament adopted differential tariffs to reduce its dependency on foreign timber and encourage the use of colonial stocks, the first known contract to supply the royal dockyards with timber from Québec was awarded in 1804. Following the tradition of the navigation and trade acts of the 17th and 18th centuries, the rights to Québec's forests were licensed to mercantile houses in England,⁶⁰ who then authorized their agent(s) in the province to contract local lumbermen to cut and transport the requested timber and lumber to Québec city, where it would be sorted and loaded onto ships bound for the United Kingdom. Licenses were usually valid for one year and could be issued to more than one contractor (i.e., licenses were non-exclusive) (Scott, 2008, p. 404).

⁵⁷ The concept of "waste land" is generally attributed to Locke ([1691] 1824) who equated waste with unproductive land held in "common" (i.e., open access): "*land that is left wholly to nature, that hath no improvement of pasturage, tillage, or planting, is called, as indeed it is, waste; and we shall find the benefit of it amount to little more than nothing* (p. 235).

⁵⁸ For example, see: Article 54 of Instructions to James Murray, September 7, 1763; Additional Instructions to the Governor in Chief of the Province of Québec, July 2, 1771; Instructions to Guy Carleton, January 3, 1775; Extracts of His Majesty's Instructions to Lord Dorchester dated September 16, 1791; Rules and Regulations for the Conduct of the Land Office Department, February 17, 1789 – Available in Shortt and Doughty (1918).

⁵⁹ The Royal Instructions to Charles Poulett Thompson (7 Sept. 1839) are the last set of instructions to a Governor General that reserved timber fit for the Royal Navy. See "Copy of the royal instructions to the Right Hon. C. Poulett Thomson when appointed Governor General of Canada", CIHM no. 9_01287.

⁶⁰ Scott, Idles and Company held exclusive rights to naval contracts in Canada between 1804 and 1814, and then gradually shifted towards a monopoly that was held by Henry Osborne, Benson and Company from 1818 to 1822. See "Osborne, Henry" In *Dictionary of Canadian Biography Online*: [http://www.biographi.ca/009004-119.01-e.php?&id_nbr=3704]

However, other than granting "*leave and permission*" to enter into the woods of the Provinces of Upper and Lower Canada "*to fell and cut so many good and sound trees as may answer the number and dimensions mentioned in the said contract*,"⁶¹ the requirements and obligations of license holders were rather non-specific. Save the authority of the surveyor of Woods and Forests or his deputy to mark the trees reserved for Crown use (an improbable if not impossible task)⁶² and the exigencies of the British market regarding the mensuration and quality of the articles to be exported,⁶³ those engaged in the early trade faced few if any constraints in their efforts to capture available rents (Lower, 1973, p. 197).

In response to the favourable market conditions of the day,⁶⁴ the nascent timber and lumber trades of British North America grew exponentially during the first decades of the 19th century.⁶⁵ And as demand increased, so did the quantity of wood being taken out in excess of what was actually licensed.⁶⁶ Taking advantage of the near limitless demand, middlemen in Québec soon began diverting shipments from the royal dockyards to the more lucrative civilian trade (Lambert and Pross, 1967, p. 31) and with the tacit permission to appropriate more resources than granted came the incentive for unauthorized entrants to take part in the flourishing timber development.⁶⁷ Collectively, the inefficiencies of the naval contracts and muted efforts by colonial officials to monitor and enforce the basic requirements of the admiralty licenses meant that until the 1820s, the forests of British North America were essentially dominated by open access conditions (Lower, 1973, p. 60). And since the terms of the trade were no different than the conditions that prevailed in the neighbouring province of New Brunswick, one may safely posit that to the detriment of the

⁶¹ Extracts of the Royal Warrant and license issued to Scott, Idle and Company on October 2, 1807 *In White* ([1899] 1907, pp. 156-57).

⁶² *Ibid.*

⁶³ See cullers and measurers acts: (1808) 48 Geo.3, c. 27; (1811) 51 Geo.3, c. 14; (1819) 59 Geo.3, c. 7 (Imp.).

⁶⁴ Duties on colonial timber were repealed from 1806 (46 Geo.3, c. 117) to 1820 (1 Geo.4, c.52) (Imp.).

⁶⁵ Timber from Québec (compared to Baltic sources) for the years 1793-1802 accounted for 1.2% of total British imports. The ratio rose to 7% between 1803-1807 and an impressive 169% between 1808-1812 ((Ouellet, 1980, p. 196). By 1810, the timber trade became the province's most important economic activity (*Ibid.*, p. 195).

⁶⁶ Memorial by Mr. C. Shirreff to Lord Dalhousie, 28 August, 1828, *In Brymner*, D. 1901. Report on Canadian Archives. Sessional Paper no.18, Victoria 64. Ottawa: Printed by S.E. Dawson, pp. VI-X.

⁶⁷ Because the trade was lucrative and enforcement was weak, many lumbermen operated without specific contracts (see Reid, 1990, p. 50; Lower, 1973, p. 197). Some, such as Henry Osborne and Company were already operating in Québec and selling supplies to the Royal Navy both before and after the first official warrant was issued in 1804 (Gillis and Roach, 1986, p. 5). Others, such as Philemon Wright, petitioned the colonial government to obtain land grants, contracted with settlers to obtain their timber, acted as settlers themselves, or simply trespassed in the absence of any legal authority. See *First Report of the House of Assembly*, 1821, CIHM no. 21102; and Lambert and Pross (1967, p. 31).

socio-economic well-being of the colony itself, the distribution of benefits likely swayed in favour of the timber merchants, as Fisher acutely observed in 1825:

*"...the capital of the country has been wasted, and no improvement of any consequence made to compensate for it, or to secure a source of trade to the inhabitants when the lumber shall fail. Instead of seeing towns built, farms improved and the country cleared and stocked with the reasonable returns of so great a trade; the forests are stripped and nothing left in prospect, but the gloomy apprehension when timber is gone, of sinking into insignificance and poverty."*⁶⁸

As the number and temerity of lumbermen began to grow, so did the threat of enforcement and seizure by colonial authorities (Gillis and Roach, 1986, pp. 15-18; Reid, 1990, pp. 50-51).⁶⁹ In Upper Canada and along the Ottawa river more specifically, the depredation committed by operators acting without the warrant of a licensed contractor was rivalled only by the abuse of privilege perpetrated by those acting under the "cloak" of an ill-defined licensing instrument.⁷⁰ Combined with the absence of a designated and qualified authority to monitor and enforce rules pertaining to Crown forests and the King's privilege on ceded land (i.e., the preservation of white pine for the royal navy), colonial officials in the early 1820s were faced with increasing reports of arbitrary seizures by local sheriffs and complaints by licensed contractors regarding the actions perpetrated by illegal operators and over zealous Crown agents.⁷¹ To bring an end to the alleged interference of privilege and what was widely viewed as an *"embarrassment to the trade,"* the then Secretary for War and the Colonies, the Earl of Bathurst sent a dispatch on July 22, 1825 to the Lieutenant Governor of Upper Canada urging him to find an agreeable solution to the problem at hand so that *"the trade might be placed with advantage to the province and without injury to the Country."*⁷² Yet, however wasteful the situation was in Upper Canada, the relative absence of similarly documented evidence in Lower Canada (e.g., petitions from interested parties, official correspondences, or discussion within the Legislative Council and Assembly of the

⁶⁸ Fisher, P. [1825] 1921. History of New Brunswick, St. John: The Society, IA [historyofnewbrun00fish], p. 73.

⁶⁹ Proclamation issued under Craig (Governor 1807-1811), 24 December, 1808 (Québec Gazette, 29 December, 1808) forbidding unauthorised persons from trespassing on Crown reserves for the purposes of cutting and removing pine and other timber under penalty of law.

⁷⁰ "Report of the Upper Canada Executive Council, 2 November 1825" In Upper Canada Executive Council, State Book H [microform], Ottawa: PAC, pp. 121-124.

⁷¹ *Ibid.*

⁷² Upper Canada Executive Council, State Book H [microform], Ottawa: PAC, p. 100

province)⁷³ suggests that up until this point, the naval contracting system largely operated to the satisfaction of those interested in the trade. However, just as operators began calling for changes in the rules governing forest resource use in the Upper province, Lower Canada was itself caught in an ongoing political struggle that would ultimately have a direct and profound effect on the way natural resources are governed in Canada, leading to a dramatic change of policy that ultimately benefited the concerns of both licensed and unlicensed operators.

4.2.1 The Struggle for Self-Government

Prior to the unification of Lower and Upper Canada in 1840, the colonial government was accountable only to the British Parliament and the Governor held exclusive veto rights over all the affairs of the colony.⁷⁴ However, displeasure with the administration of colonial affairs grew steadily during the first few decades of British occupancy⁷⁵ and in order to appease mounting tensions with the inhabitants of the province (both French and English), a revised constitution was adopted in 1791. Of specific interest to the evolution of natural resource governance institutions in Québec and Canada more broadly was the creation of an elected lower house to provide a counterweight to the appointed Legislative and Executive Councils. The *Legislative Assembly* was vested with the authority to pass laws (1791 Constitution Act, s. 2) and to direct the use and application of duties levied in the Province's interest by way of advice and consent to the law(s) made for such purposes (*Ibid.*, s. 46 & 47). But nourished as it was by the republican ideals of the time (Kennedy, 1918, p. 147),⁷⁶ the Assembly followed the letter of the law to a fault and took advantage of the position so granted to push the spirit of the revised constitutional arrangements to heights that went well beyond the intentions of the imperial government.⁷⁷ Thus was born the struggle for self-government and although many issues of contention arose between appointed and elected members of the House, none had as great an impact on the evolution of natural resource

⁷³ A review of the Journals of the Legislative Council and Assembly of Lower Canada for the years 1791 to 1830, as well as the Minute Books of the Executive Council and Land Council for the same period revealed no specific demands, petitions or grievances relative to the state of the early lumber trade in Lower Canada, other than the necessity to maintain preferential tariffs and anecdotal mentions of fines collected for illegally cutting Crown timber.

⁷⁴ See the Québec Act of 1774 (14 Geo. 3 c. 83) and Article 30 of the Constitution Act of 1791 (31 Geo. 3. c.31).

⁷⁵ For a detailed analysis of this period see Ouellet (1980) as well as Shortt and Doughty (1918).

⁷⁶ Namely the American constitutional experiment of representative government and assembly rule. See Kennedy's (1918, p.147) explanatory notes on the period between 1774-1791.

⁷⁷ As explained by the Secretary for War and the Colonies, Lord Liverpool: "It is much to be regretted that the Constitution established for the Province of Lower Canada...should appear to have so entirely disappointed the expectations of those who introduced it." Liverpool to Craig, 12 Sept., 1810, in Kennedy (1918, p. 276).

institutions than the question of revenue, and the struggle to control both the sources of supply and the means of appropriation.

By virtue of the Sovereign's prerogatives over territories acquired by cession or conquest,⁷⁸ revenues derived from casual and territorial sources were constitutionally vested in the Crown and granted by order to the king's government to defray the civil expenses of the province.⁷⁹ Further, because the Sovereign was legally designated as the residual claimant to all territories acquired on its behalf, entitlement to the permanent revenues of the Crown was considered exclusive and thus unalterable by the actions of the provincial legislature. As interpreted at the time,

*"the charge of carrying into effect the system of management...are functions so strictly of an Executive and administrative character, that they can only be properly discharged by those, in whose hands all similar powers are lodged by the Constitution."*⁸⁰

Concretely, this meant that until unification, the Governor held exclusive rights over the management and use of territorial revenues, thus allowing the Executive Council to appropriate such supplies for the benefit of the province without interference from the provincial legislature.⁸¹ Yet, in spite of such privileges, the actual authority of the Governor to make unilateral decisions was quite limited since most supplies were legally tied to fixed and permanent charges (Buckner, 1985, pp. 56-57). To finance exceptional services, pay new administrative charges, dispense patronage, or even reduce the province's debt, the Governor had to work with the elected members of the Assembly to obtain their financial or legislative assistance (*Ibid.*). However, after years of acrimonious debates between the Executive Council and the Assembly, relations grew to a standstill in the mid-1820s amidst mounting

⁷⁸ See General Introduction to Part II above.

⁷⁹ Lord Dorchester, 19 April, 1794, JHALC 1794, p.230; Quebec Revenue Act (14 Geo 3, c.88); and "Report of the Receiver General to Milnes Baronet," 15 May 1801, in Daughy and McArthur (1914, pp. 274-277). The Receiver General's report provides a detailed account of the constitutional and legal foundations of the Crown's prerogatives over territories conquered or acquired.

⁸⁰ Despatch from Glenelg to Bond, 30th January, 1836, p. 25, CIHM no. 34765.

⁸¹ Receiver General to Milnes Baronet, 15 May 1801, in Daughy and McArthur (1914, pp. 274-277); Liverpool to Craig, Sept. 12, 1810, in Kennedy (1918, p. 276); and Bathurst to Burton 4 June 1825, in Kennedy (1918, pp. 339-340).

evidence of corruption in the management of Crown lands,⁸² the growing debt of the provincial treasury, embezzlement of public funds by a prominent member of the executive,⁸³ and the Assembly's refusal to grant further supply bills without debates or votes on appropriation priorities (see Buckner, 1985, pp. 111-119).

Following a slew of prorogations and dissolutions of the Assembly, efforts to bring the Lower House under the executive's control only helped to fuel the Assembly's intransigence vis-à-vis colonial administrators, leading to a series of petitions and resolutions to the Governor and home country for a greater say in the management of public affairs, including the control of all provincial revenues (Creighton, 1931). At the time however, the very notion that the House of Assembly should have command over the permanent revenues of the Crown was considered "*contrary to law...and subversive of all the principles of constitutional government.*" In short, the "*rights and prerogatives of the Crown for the due exercise of the royal and Executive authority over all or any of [its] Provinces*" were unconditional.⁸⁴ Put differently, the task of upholding the prerogatives of the Crown lay squarely in the hands of the King's government:

"The appropriation of the permanent revenue of the Crown will always be laid by his Majesty's command before the house of assembly, as a document for their information

⁸² Inquiries into alleged corruption in administration of Crown Lands were carried out by the Lower Canada House of Assembly between 1821 and 1824. In all, 9 reports were produced, detailing strong evidence of corruption and cronyism within the provincial executive, including the allocation of some 2,203,709 acres to a handful of individuals with close ties to the Executive Council (many of whom resided outside of the province itself), and instructions from the King to the governors requesting that a revenue be raised from the sale of Crown lands for the benefit of the province. Both of these facts were evaded by the colonial government and hidden from public view. Consequently, between 1797 and 1821, not a single shilling was raised from the sale of Crown lands and not a single petition for land, from a French inhabitant, was answered favourably by the colonial administrators. See "Lower Canada, House of Assembly Committee on that Part of the Speech of His Excellency the Governor in Chief Which Relates to the Settlement of the Crown Lands," CIHM no. 21102.

⁸³ The case of Receiver General Caldwell is an excellent case in point. See "Report of the Select Committee on the State of the Civil Government of Canada", in Kennedy (1918, pp. 345-351).

⁸⁴ "Huskisson's Speech on Canadian Affairs", 1828, in Kennedy (1918, p. 343). See also: "Opinion on the Privileges of the House of Assembly", 30 Dec. 1815, (*Ibid.*, p. 297-299); Portland to Simcoe, 20 May 1795, (*Ibid.*, p. 234); Liverpool to Craig, 12 Sept. 1810, (*Ibid.*, p. 276); Chief Justice Monk's Remarks on "Memoire... des Habitans" 1814, (*Ibid.*, p. 287); Dalhousie's Speech proroguing the Legislature of Lower Canada, 9 March 1824, (*Ibid.*, p. 338); Dalhousie's Speech proroguing the Legislature of Lower Canada, 1827, (*Ibid.*, p. 341).

and... will exclusively and invariably be applied, under the discretion of the king's government, for the benefit of the province."⁸⁵

The solution therefore to Lower Canada's growing financial difficulties was to secure the independence of the executive by all necessary means (see Buckner, 1985, pp. 123-125). And save the politically unfeasible prospect of changing the constitution itself,⁸⁶ no other source of supply provided as ideal a set of conditions for raising a revenue exclusive of the Assembly's legislative action than the Crown forests of early 19th century Québec.

Hence, the primary motive for change did not emerge because of the distress it caused but rather from an acute realization that the *status quo* left potential gains uncaptured. For all sources of territorial revenues were, by ancient custom, reserved for the expressed pleasure of the Crown and made unalterable by the legislative action of colonial assemblies.⁸⁷ In a context where the independence of the appointed representative of the King's government was increasingly challenged by the popularly elected members of the legislature, the struggle to secure exclusive sources of revenue for the maintenance of the executive's independence was of vital necessity to the pursuit of British colonial interests (Buckner, 1985, pp. 111-127).

4.2.2 Control Over Resources and Revenues

When opportunity came to better regulate the timber trade in the Ottawa Valley, it was the potential to generate "*a very considerable revenue [for] the Crown*" that served as the

⁸⁵ Bathurst to Burton, 4 June 1825, in Kennedy (1918, pp. 339-340). In an address dated 22 Feb. 1837, a reply from the House of Commons to the grievances expressed by the Lower Canada Assembly stated that "*The Governor, Lieutenant Governor, or person administering the Government of this Province, is entrusted with the exercise of the Royal Prerogative within the same, and that he, (and not the Executive Council) is constitutionally responsible, as well to the Sovereign as to the people of this Province, for the impartial and upright performance of the duties of his office...and that any attempt to transfer ... this responsibility, and as a necessary consequence the power and patronage vested by law in the person administering the Government, is in derogation of the Constitutional Charter, and would be dangerous to the liberties of the people — injurious to the stability of our social and political Institutions — and utterly destructive of the ties which attach this Colony to the British Empire.*" See "To the Honorable House of Assembly: your committee, to whom was referred...the letter of the Speaker of the House of Assembly of Lower Canada..." CIHM no. 21605.

⁸⁶ An attempt by the Colonial Office to pass a Union Bill between Upper and Lower Canada in 1822 failed in the 3rd reading of the Bill by the House of Commons due to concerns regarding the proposed redistribution of power (see Buckner 1985: 116-199).

⁸⁷ This point was confirmed by Lord Aylmer in an address to the Legislature of Lower Canada, dated 25 Feb. 1831. With reference to a message delivered on 23 Feb. 1831 in which the Governor confirmed the King's willingness to surrender all Crown revenues levied through acts of the British Parliament in exchange for a civil list, the Governor reaffirmed that all territorial and casual revenues were exempt from the proposed arrangement, including the land fund and timber fund. In citing the authority under which such resources fall, Aylmer writes: "*They are enjoyed by the Crown by virtue of the Royal prerogatives, and are neither more nor less than the proceeds of Landed Property, which legally and constitutionally belong to the Sovereign on the Throne.*" See Appendix AAA, Vol. XL, JALC 1831.

underlying rationale for change.⁸⁸ With the advice of local timber merchants Charles Sherriff and George Hamilton, the Upper Canada Executive Council recommended that standing timber be priced to place the trade on fairer and more equitable terms, impose “*a salutary check*” on past abuses and ensure that government receives its full share of dues.⁸⁹ Recognizing that the cutting of timber on the waste lands of the Crown may just as well “*be regulated and turned to advantage since it cannot be prevented*,”⁹⁰ the Executive Council of Lower Canada approved the proposed regulatory scheme, adding that in future years, it would be expedient for the Crown to consider the right of the provinces’ to issue licenses directly for specific quantities of timber, within identified territorial limits and at fixed prices, so as to discontinue the inefficient practice of issuing such licenses in England.⁹¹ With this endorsement, a joint proclamation was issued on May 3rd and June 24th, 1826 by Upper and Lower Canada respectively, to the effect that henceforth, “*it shall and may be lawful for all Our Subjects...to enter into Our Woods and Forests [within the greater Ottawa Valley] ... to Cut and carry away such Oak and Pine Timber as may be fit for the purposes of Exportation*,” provided always that certain rates and duties be paid to the said provinces (see Table 4.1 below). Smaller diameter trees were summarily protected by the imposition of a double duty on square timber that was less than eight inches at the small end (which only encouraged operators to cut off the end portion of squared trees); those licensed by the Admiralty maintained their privilege and were exempt from paying the duties specified in the proclamation; and activities related to monitoring, enforcement (duty collection and seizures), and reporting (for both provinces) were handed to a single officer (i.e., Charles Sherriff) to be stationed at a narrow straight (Chaudière Falls) of the Ottawa river where all timber harvested from either side (Lower or Upper Canada) must pass on route to Québec City.

⁸⁸ Upper Canada Executive Council, State Book H, 2 Nov. 1825, pp. 119-120. In subsequent writings, the system devised by Sherriff was referred to as “*the plan for raising a revenue*” for the Crown. See Committee of the Whole Council Report, 9 Dec. 1826, Lower Canada Executive Council Minute Books, p.189 [microform], Ottawa: Public Archives of Canada.

⁸⁹ Sherriff and Hamilton to Major Hillier, 18 Aug. 1825, Upper Canada Executive Council, State Book H, p. 101. It is interesting to observe that as sawmill owners, Sherriff and Hamilton strongly advised colonial authorities to place an exemption on deals (i.e., planks) due to the up-front costs of production and greater competition from Lower Canada. In response, the Upper Canada Council recommended a nominal fee of 1 penny per log, compared with 1 penny per ft³ for square timber.

⁹⁰ Dalhousie to Maitland, 26 Feb. 1826, Upper Canada Executive Council, State Book H, pp. 214-216.

⁹¹ 9 February 9, 1826, Lower Canada Executive Council, Minute Books, pp.137-139 [microform], Ottawa: Public Archives of Canada

Table 4.1 Upset Prices for Timber⁹²

| DESCRIPTION | 1826 PROCLAMATIONS | 1826 TREASURY INSTRUCTIONS | 1828 LICENSE RATES |
|--------------------------------|--|----------------------------|-------------------------------------|
| Square Oak | £6, 5s (1000 ft ³) or 1½ d/foot | £4, 3s, 4d | 1½ penny/foot |
| Square Red Pine | £4, 3s, 4d (1000 ft ³) or 1d/foot | £3, 0s, 0d. | 1 penny/foot |
| Square White Pine | £2, 1s, 8d (1000 ft ³) or ½ d/foot | £1, 10s, 0d. | ½ penny/foot |
| Saw Logs for Deals | 2d /log | 2d / log | 4d (white pine) & 2d (spruce) / log |
| 1000 Standard Staves | £4, 1s, 8d | £4, 0s, 0d. | £4, 1s, 8d |
| 1000 ft ³ Hardwoods | - | £2, 10, 0d. | £4, 1s, 8d |
| Red Pine logs | | | 7½ d. each (1837 onwards) |

Note: £1 (pound) = 20s (shillings) = 240d (pennies), and 1s = 12d.

Sources: 1826 Proclamation, see copy of original in Reid (1990, p. 92); 1826 Treasury Instructions contained in Lower Canada Executive Council Minute Book (1827) pp. 201-209; 1828 License Rates specified in Québec Gazette No. 36, on 26 June 1828.

Needless to say, given that several million cubic feet of timber was by then being taken out of the Valley each year, the appointment of only one officer to monitor and ensure compliance with the newly devised set of rules was unlikely to produce convincing results. Following the initial trial season of 1826, the duty collector at Chaudière Falls hired his son (Robert Sherriff), a clerk and several men to measure the timber passing through, while he (Charles Sherriff) stationed himself at Québec to collect payments from those who relied on promissory notes to gain safe passage. The overall efficacy of the revised approach was not much better. For instance, in 1827, duty collectors at Chaudière Falls measured some 300,000 ft³ of timber,⁹³ but the overall amount of pine, oak, and hardwoods exported from the port of Québec City alone was 8,284,114 ft³, with an additional 1,621,648 pieces of deal, boards or planks, 1,318,133 staves, 1,999 spars, and 938 masts or bowsprits (see Table 4.2 below).

⁹² The term "upset price" refers to the base price for selling crown timber, the price at which bidding was to be initiated.

⁹³ Inspector General's remarks on accounts provided by Robert Sherriff for timber duties collected in 1827. 19 Feb. 1828, in Upper Canada Executive Council State Book H, pp. 443-446. [microform], Ottawa: PAC

Table 4.2 Gross Timber Revenues (Sterling) and Timber Exports from the Port of Québec from 1827 to 1836

| Year | Timber Revenues (1) | | | | | | Timber Exports from the Port of Quebec City (2) | | | | | | | |
|------|---------------------|-----|-----|---------------------|-----|------|---|---------------|----------|------------|-------------------|-------------|-------------------------------|--|
| | Timber Revenue (LC) | | | Timber Revenue (UC) | | | Bowsprits/ Masts (ps) | Spers (ps) | Oak (cf) | Pine (cf) | Hardwoods (cf) | Staves (ps) | Decks, boards, planks (ps) | |
| 1827 | £522 | 3s | 7d | £2,784 | 9s | 3d | 938 | 1,999 | 869,440 | 1,443,600 | 345,800 | 1,318,133 | 1,621,648 | |
| 1828 | £1,193 | 17s | 9d | £4,176 | 19s | 2d | 627 | 2,070 | 987,800 | 4,431,160 | 409,160 | 1,584,758 | 1,499,156 | |
| 1829 | £1,249 | 10s | 10d | £3,997 | 2s | 3d | 973 | 1,679 | 976,440 | 4,940,400 | 451,200 | 1,315,471 | 953,645 | |
| 1830 | £3,193 | 17s | 7d | £7,672 | 0s | 2d | 252 | 1,468 | 474,880 | 4,631,080 | 401,840 | 1,133,478 | 908,850 | |
| 1831 | £1,714 | 10s | 9d | £9,662 | 5s | 2d | 881 | 1,250 | 671,040 | 5,876,520 | 499,040 | 965,113 | 1,062,113 | |
| 1832 | £2,846 | 12s | 5d | £6,577 | 12s | 5d | 1,242 | 861 | 736,560 | 5,958,280 | 741,520 | 723,486 | 1,088,925 | |
| 1833 | £1,482 | 8s | 6d | £1,928 | 12s | 3d | 776 | 3,104 | 946,400 | 7,472,320 | 537,760 | 886,171 | 2,185,241 | |
| 1834 | £4,332 | 14s | 0d | £3,059 | 9s | 9d | 1,331 | 3,849 | 842,960 | 9,546,720 | 931,960 | 1,698,742 | 2,501,927 | |
| 1835 | £5,369 | 1s | 2d | £8,583 | 0s | 3.5d | 502 | 2,190 | 708,360 | 10,243,640 | 739,040 | 1,562,250 | 1,482,287 | |
| 1836 | £8,975 | 19s | 7d | £4,285 | 17s | 11d | 376 | 1,734 | 831,040 | 10,703,880 | 848,480 | 1,866,514 | 1,786,787 | |

Sources (1) Timber Revenues for 1827 drawn from Upper Canada Executive Council State Book H, p. 445. All Other figures were derived from "General Commission of Enquiry for Crown Lands and Emigration" (1839) Quebec. CIHM no. 9_01960; (2) Export data drawn from Appendices to JALC. Figures for Pine, Oak and Hardwoods (Elm, Beech, Maple, Walnut, Birch, etc) were converted from "tons" to cubic feet (cf) using the standard of 40 cubic feet / ton that was then in use.

While the colonial government sought to take things into its own hands and regulate access to Crown timber in the ungranted lands of the province, the Colonial Office in London issued its own directives but a year later. By order of the Lords Commissioners to the Treasury, John Davidson was appointed Surveyor-general of Woods and Forests on November 13th 1826.⁹⁴ While Davidson's appointment respected the colonial government's recommendation that greater specificity be given to actual rights of license holders (i.e., licenses were to be issued for specific quantities and kinds of timber within predetermined areas for no more than 12 months), London's reluctance to do away with the system of naval reserves meant that in theory, Davidson could only sell licenses to cut "*timber not fit for His Majesty's Navy*."⁹⁵ However, such a privilege was neither realistic nor enforceable. Davidson was instructed to auction licenses for no more than 2000 ft³ (per license). Public notices were

⁹⁴ Complete details of Davidson's appointment and instructions are provided in the Lower Canada Executive Council Minute Book, 1827, pp. 201-209 [microform], Ottawa: PAC. A similar appointment was given to W.G. Felton as Commissioner of Crown Lands in Lower Canada.

⁹⁵ *Ibid*, p. 209.

to be posted in June or July of each year, and licenses were valid for nine months only.⁹⁶ Moreover, licentiates were required to enter into a bond, measurers were to be posted in every district to monitor and report both the quantities and descriptions of timber appropriated, general accounts transmitted to the receiver general, and a yearly report handed to the Commissioners of the Treasury.

However, competition along the more accessible reaches of the Ottawa valley was high and fearing the dissipation of resource rents, George Hamilton again made a series of recommendations to the Governor of Lower Canada in order to place the trade within the "*hands of capitalists*" and prevent "*men of no means*" from entering the trade and "*destroy the market, the quality of the product, and the stability of the revenue*" (quoted in Gillis and Roach, 1986, p. 18). Instead of applying for a specific amount of wood within a given area, Hamilton succeeded in putting the onus on applicants to specify the actual districts and quantities of wood for which licenses were sought, and if no other party made advances for the same area, resource rights were granted to the original applicant.⁹⁷ But the caveat Hamilton managed to introduce was that henceforth, a quarter of the purchase money would have to be paid at the time of sale with the rest due on October 1st the following year. And in the absence of accessible or affordable credit, few could afford such an upfront payment at a time when all available resources were needed to supply harvesting operations for the coming winter.

Regardless of the pretensions that were placed upon the revenue generating potential of the timber trade, the income amassed by the system of dues and licenses remained relatively modest prior to unification in 1840. On average, nearly twice as much revenue was produced through land sales in any given year and compared with Upper Canada timber revenues in the Lower province were seldom more than half of the receipts collected in its sister province

⁹⁶ The proclamations of May and June 1826 are usually referenced as the first licensed timber sales in Québec and Ontario. However, neither of these proclamations makes such claims. The proclamations made provisions for the right to appropriate timber on the conditional payment of certain duties only. The first advertised sale of timber (licenses) appeared in the Québec Gazette (No. 39) on July 5, 1827, but the sale was delayed until the following year due to the inadequacy of existing surveys (Lower Canada Minute Book, 24 June 1827, p.244) – see postponement notice in Québec Gazette (No.52) dated October 4, 1827. The first licenses were sold the following year (advertisement appeared in the Québec Gazette No. 36, on 26 June 1828. The first colonial government to formerly adopt such a licensing arrangement was New Brunswick in 1816 (Gillis and Roach, 1986, p.10).

⁹⁷ Testimony of John Davidson, in Buller and Durham (1839, p. 52, paragraphs 208-209).

(see Table 4.2 above)⁹⁸. But in either case, the sums gathered paled in comparison to the actual amounts of timber that was exported. Supposing that only a penny was extracted from every foot of oak, pine and hardwoods, and for every piece of mast, bowsprit, spar, deal and stave, the amount of revenue that would have been collected in say 1834, would have been well over £64,885 (as opposed to the £7,392 that was generated for both provinces). Given that the actual rates were considerably higher than our example (see Upset Price for Timber in Table 4.1), and that colonial export data does not include all of the wooden articles that were actually exported from Québec, nor that which was exported from Gaspé or St. John (St-Jean-sur-le-Richelieu), evidence suggests that the system was at best inefficient if not inordinately wasteful.

As a prominent member of Lower Canada's timber trade put it to the 1835 Committee on timber duties,⁹⁹ the colonial government received a "*mere trifling*" for the timber granted under license. While this was obviously to the advantage of lumbermen and timber merchants alike, how could such arrangements be of benefit to a government faced with chronic financial difficulties? At the time, the forests of Upper and Lower Canada were generally viewed as being "*nearly inexhaustible*"¹⁰⁰ and the value of standing timber was considered no greater than the labour costs associated with cutting, squaring, milling and ferrying loads to Québec where they could then be exported.¹⁰¹ Yet, Crown lands and forests were also regarded as the primary economic assets of the province and therefore critical to the maintenance of imperial order within a largely recalcitrant colonial dependency. As detailed in the numerous petitions sent to the home government in favour of the preferential duties, not only was the timber trade the principal source of currency in the colony, it helped to subsidize the importation of British goods and the emigration of tens of thousands of British subjects, in addition to serving as an important nursery for seamen and the only viable means

⁹⁸ On this point, it is interesting to note that in spite of Upper Canada's relative success in terms of capturing rents (compared to Lower Canada), a Commission on the performance of the Crown departments of the province in 1839 found serious deficiencies in the collection of timber revenues, resulting in the dismissal of Charles Sherriff and his son, and a restructuring of the entire department. See "Report on the Public Departments of the Province ... of Upper Canada," 1839, pp. 21, 156-162, and 305-311, CIHM no. 9_00901.

⁹⁹ Testimony of John Nielson (paragraph 2025), in "Report from the Select Committee on Timber Duties" 1835, Parliament, London. CIHM no. 9_01807.

¹⁰⁰ See minutes of the Upper Canada Executive Council, State Book H, 2 Nov. 1825 [microform], Ottawa: PAC; Shirreff, C. 1830. "A few reasons against any change in the system of our colonial lumber trade." CIHM no. 21354.

¹⁰¹ As John Hamilton put it before the 1820 Committee on Timber Duties: "*It becomes valuable from the labour that is bestowed upon it*" (see Reid, 1990, p. 83); See also the minutes of evidence presented in the "Report from the Select Committee on Timber Duties" 1835, paragraphs 2025 and 2696.

of generating an income within a largely poor and subsistence-based rural economy.¹⁰² Moreover, in a province dominated by French-speaking inhabitants whose popularly elected Assembly largely rejected the ascendancy of British interests in the conduct of public and economic affairs, any instrument that could help minimize such a disadvantage was to be encouraged and supported by all necessary means.¹⁰³ Hence, any attempt to increase the colonial government's share of revenue from timber would have both hindered those engaged in the trade and ultimately inconvenienced its own attempts to even out the balance of power within the Legislative Assembly, by creating a disincentive for the mostly English commercial class to settle in the province and take part in the most important economic sector of the day.

4.2.3 Favouritism, Corruption, and Rent Seeking

Moreover, the personal interest of early colonial authorities regarding the natural resource wealth of Canada was undoubtedly greater than what could be openly acknowledged. For instance, most members of the Legislative Councils in Upper and Lower Canada were also prominent businessmen with landed interests,¹⁰⁴ and maintained close ties to the imperial trading system which, as in the case of Sir John Caldwell in Lower Canada, usually implied considerable investments in the timber and lumber trades. As such, relations between the commercial and merchant classes and the appointed heads of government were necessarily close and supportive. The fact that Lower and Upper Canada turned to prominent timber producers and lumber manufacturers to advise them on the best course of action to regulate the trade in forest products is certainly indicative of the level of trust that existed (and since remains) between the captains of industry and government. Although the proposed system was to the advantage of the colonial governments (a source of revenue exempt from the legislative action of the Assembly), a key incentive for devising a more effective and equitable set of rules was to provide legal legitimacy to a number of firms and individuals whose economic progress was increasingly compromised by the illegal character of their undertakings. Given that the motives of those in power were not dissimilar to the *"useful*

¹⁰² "Memorial of the Québec Committee of Trade to the Lords Commissioners of Trade and Plantations", 28 Jan. 1831, CIHM no. 9_01671; Aylmer to Goderich, 8 Jan. 1831, CIHM no. 9_01663.

¹⁰³ "Address to the Inhabitants of British America," 1836, Kennedy (1918, pp. 427-431).

¹⁰⁴ Minutes of Evidence by J. H. Kerr and Appendix no. 11 for Upper Canada, in General Commission of Enquiry for Crown Lands and Emigration, 1839. CIHM no. 9_01960.

class of men" who stood to gain from the introduction of "*order and obedience*,"¹⁰⁵ one can more easily appreciate the positive response of the colonial government to the demands that were placed upon it by the burgeoning economic interests of the day and the corresponding permissiveness of those officials who were tasked with monitoring and enforcing the Treasury instructions of 1826. So when William Price called upon the Governor in 1831 to intervene on behalf of the Québec Committee of Trade "*to represent the extreme anxiety and consternation*" of its members concerning proposed changes to the imperial policy on trade duties, Governor Aylmer swiftly endorsed the plight of Price and his associates, and called upon the home government to maintain existing conditions.¹⁰⁶ Similarly, when George Hamilton requested that a twenty five percent down payment be imposed on any one seeking a timber license in order to reduce competition (see above) or demanded exclusive rights to the major tributaries of the Ottawa along with a handful of other large firms (in exchange for various improvements to facilitate the movement of timber, such as slides and dredging), the colonial government promptly obliged the interests of Québec's nascent forestry lobby.¹⁰⁷

The favouritism, corruption, and abuse of privilege, which largely characterised the early licensing arrangements, did not go unnoticed by those acquainted with the trade and the workings of the colonial administration.¹⁰⁸ The problem, as understood by a wide range of contemporary observers, was inherently constitutional. By vesting collective choice rights in a single body of men, unaccountable to the people or an independent judiciary and yet safe in the prosecution of the Crown's unalienable prerogatives, members of the Executive and Legislative Councils were free to pursue strategies that supported their interests or close affiliates and this, to the detriment of any objectifiable social welfare measure. As Charles Buller (1840, p. 10) would later recall, after heading the 1838 Commission on Crown Lands,

¹⁰⁵ Lower Canada Minute Book, 6 dec. 1826 [microform], p. 189.

¹⁰⁶ E.g., Letter from W. Price to L. Aylmer (8 Jan. 1831) and Aylmer's immediate despatch to Goderich, Secretary of State for the Colonies on the same day. In "Memorial from certain gentlemen engaged in the timber trade in Lower Canada." CIHM no. 9_01663,

¹⁰⁷ See Minutes of Evidence by J. Davidson (paragraph 212), in Buller and Durham (1839); Gillis and Roach (1986, pp. 19-20); Reid (1990, pp. lvi-lvii) and Gillis (1975: 97-98). Under the administration of Sir James Kempt (1828-1830), virtual monopoly conditions such as the Gatineau Privilege were given to a handful of lumbermen at the expense of smaller operators who were obliged to travel further up river, thus occasioning greater costs for the shipment of supplies in addition to the payment of tolls or fees for the privilege of using what ever improvements were made. The privileges were maintained until 1843 but as shown throughout the remainder of this thesis, the tradition of supporting larger operators at the expense of smaller enterprises never withered.

¹⁰⁸ Members of the Executive and Legislative Councils did not have exclusive rights over the abuse of privilege and the allocation of rent seeking opportunities. In his Report on the Affairs of British North America, Lord Durham noted that the Assembly was likewise involved in "*wasting the surplus revenues of the Province in jobs for the increase of patronage, and in petty peddling in parochial business*" (see p. 99).

as part of Lord Durham's inquiry into the affairs of British North America, "*the miserable inefficiency of the irresponsible Executives of the North American Colonies*" and the "*the way in which they have mismanaged and wasted the resources of the fine countries submitted to their rule*" was, by the end of the 1830s, as self evident as the ruinous state of agriculture and widespread poverty that was by then afflicting the rural population of Lower Canada.¹⁰⁹

Although the grievances expressed by the Legislative Assembly during the 1830s regarding the mismanagement of Crown resources may have appeared overly boisterous to contemporary observers, they were not unfounded. Consistently, they argued that the "*territory and best resources*" of the province were made "*the subject of unfair speculation and monopoly*" by the King's Government.¹¹⁰ They accused the "*Executive Government*" of abusing its authority by disposing Crown land and timber to "*the personal advantage of their members...their friends and subalterns*"¹¹¹ and of "*endeavouring to create for itself...resources independent of the control of the representatives of the people.*"¹¹² Though summarily dismissed by Crown officials, the issues raised were not dissimilar to the problems that were later uncovered in Upper Canada,¹¹³ nor were they discordant with the concerns voiced by prominent members of British establishment in Lower Canada:

"[T]he Legislative Council...contains too many persons holding dependent situations under the Crown and liable to be acted upon by undue influence...The irresponsible manner in which the Land Granting Department is conducted, the salary

¹⁰⁹ See Ouellet (1980, ch. 13,14 and pp. 422-434 in particular). Ouellet and even more contemporary students of 19th century Québec (e.g., Egnal, 1996) contend that the failure of agricultural productivity in Lower Canada, and especially in the poorer districts of the province was due to poor land use practices, the deficiencies of seigneurial land holdings and the largely uneducated inhabitants. In this sense, French Canadians were viewed as being ignorant, simple in custom and ill prepared for political innovation (Ouellet, 1980b, p. 418, n. 34). Yet, little consideration is given to the fact that from 1786 to 1838, practically no land was sold or granted to the poorer inhabitants of the province, thus limiting their ability to lay fallow land under cultivation or convert new areas towards agricultural purposes to support the growing population. For detailed inquiries into the failures of the colonial land policies, see Buller and Durham (1839); and "Reports by the Committee of the House of Assembly on the Settlement of Crown Lands" (1821-1824), CIHM no. 21102.

¹¹⁰ See "Petition of the House of Assembly of Lower Canada to the British Parliament", 26 Feb. 1836, CIHM no. 21568, p. 4. From the earliest days of the British regime, members of the Executive and Legislative Council took advantage of their position to bestow generous land grants to one another, their friends, and their families. See "Letter from Joseph Howe to Lord John Russell, Kennedy (1918, p. 505); "Address by the Constitutionalists of Montreal to Men of British or Irish Origin", 1834 (*Ibid.*, p.396).

¹¹¹ See "Petition of the House of Assembly of Lower Canada" CIHM no. 21568, pp. 11, 17, and 18.

¹¹² Resolution 66, "Ninety-Two Resolutions", 21 Feb. 1834, Kennedy (1918, p.381).

¹¹³ See "Seventh Report from the Select Committee of the House of Assembly of Upper Canada on Grievances" 1835, CIHM no. 25940; "Report on the Public Departments of the Province ... of Upper Canada," 1839, pp. 21, 156-162, and 305-311, CIHM no. 9_00901; and Buller and Durham (1839).

*disproportioned to the duties performed, which is attached to the office, and other abuses connected with the Woods and Forests, demand revision.”*¹¹⁴

4.2.4 Challenging the *Status Quo*

However sensitive were the various classes of citizens to the mismanagement of Crown resources, what distinguished key opposition groups to the government's handling of its administrative and fiduciary responsibilities were the means by which the situation ought to be remedied. For members of the Legislative Assembly, the Executive and Legislative Councils should be composed of elected representatives and both they, and the various heads of departments, should be rendered responsible to the Lower House.¹¹⁵ But, as observed in the conclusions to the second report of the Commission on the Grievances of Lower Canada,¹¹⁶ it was considered “*impossible to devise any fair and impartial form of election, through which the great majority of a Council elected by any constituencies in Lower Canada could be other than of the party which dominates in the Assembly.*” Such a change, they argued, would be “*deprecated in the most earnest and solemn manner by almost the whole of the commercial class in the Province, and by incomparably the largest number of persons of direct British descent.*”¹¹⁷ Moderates represented by the likes of the Québec Constitutional Association viewed the Assembly's efforts with distrust and believed that adoption of the elective principle would inevitably lead to “*the concentration of political power*” within the hands of persons who were decidedly against the “*just subordination of the colony to the parent state.*”¹¹⁸ In their view, the efficacy of the colonial administration would be best achieved through the continuance of the Crown's exclusive right to appoint members of the legislature “*subject to such regulations as may be deemed proper for ensuring the appointment of fully qualified persons.*”¹¹⁹ However, given that such a measure would not prevent the Assembly from controlling the various sources of revenue, nor its efforts to perpetuate what the Constitutional Association described as “*anti-commercial polic[ies],*” an “*adverse disposition... to works of acknowledged public utility*”, and the retrograde

¹¹⁴ See “Address by the Constitutionlists of Montreal to Men of British or Irish Origin”, 1834, Kennedy (1918, p. 396).

¹¹⁵ See “Resolutions of the House of Lower Canada”, 1836, Kennedy (1918, pp. 425-427).

¹¹⁶ See “Reports of the Commissioners Appointed to Inquire into the Grievances Complained of in Lower Canada, 20 Feb. 1837. CIHM no. 9_05197.

¹¹⁷ *Ibid.*, Second Report, paragraph 8.

¹¹⁸ See “Declaration of the Constitutional Association of Québec” in Kennedy (1918, p. 389).

¹¹⁹ *Ibid.*, p. 391. See also “Report of the Commission of Inquiry on the Grievances of Lower Canada”, General Report, Sect. 1, paragraphs 25 to 33.

"institutions of [a] feudal Europe," an appeal was made to "*Sister Colonies*" for the adoption of "*a Congress of Deputies from all the Provinces of British North America*" who, by "*strength from union*" would counterbalance the reformist ideals of the Assembly and its injurious effects upon the shipping and mercantile interests of British North America.¹²⁰ Hence, although proponents of the colonial trade were not above the problems engendered by the government's inefficiencies and poor handling of Crown land and natural resources, they could at least find some comfort in the fact that existing institutional arrangements were slanted in their favour. In contrast, the proposed alternative of control by the people for the people appeared to promote ideals, which, by mere coincidence of proportional representation, threatened to shift not only the asymmetrical distribution of the political and economic powers that heretofore benefited their ranks but also the very future of Britain's other colonial dependencies in North America due to the strategic location of the St. Lawrence and its primordial importance in the colonial trade.¹²¹

Sensing that relations within the political structure of Lower Canada were at impasse, a series of decisive measures were instituted by the British Parliament in 1835 to prevent the escalation of further tensions. The firm stance of Lord Aylmer was replaced by the more conciliatory hand of the Earl of Gosford, with instructions that he should not "*advocate British interest*" or "*secure selfish ends*" but seek to "*maintain the peace and integrity of the Empire, and to mediate between contending parties by whom those blessings have been endangered.*"¹²² As Governor General of British North America and head of the Royal Commission¹²³ for the Investigation of all Grievances Affecting His Majesty's Subjects in Lower Canada, Gosford was tasked with implementing the King's resolve to remedy all such grievances, "*especially with regard to disputed question of revenue.*" By the King's command, Gosford was ordered to communicate the Crown's willingness to "*place under the control of the Representatives of the People all public monies payable to His Majesty, or to His Officers in the Province, whether arising from taxes or from any other Canadian*

¹²⁰ "Address to the Inhabitants of British America by the Montreal Constitutional Association", 1836, Kennedy (1918, pp. 428-430). At the time, Québec's timber trade and ship building industry were considered by the Patriote party to be the sole basis of its permanent connections with the Empire (Ouellet, 1980b, p. 400).

¹²¹ On the strategic nature of the St. Lawrence, see "Petition from Inhabitants of Kingston...for Union", Kennedy (1918, p. 335); "Address to the Inhabitants of British North America", 1836, Kennedy (1918, pp. 427-429).

¹²² See despatch by Glenelg, 17 July 1836, JHALC, 22 Sept. to 4 Oct. 1836, p. 100.

¹²³ "Reports on the Grievances of Lower Canada", 20 Feb. 1837. CIHM no. 9_05197

source," pending the payment of arrears due to public servants and the result of his inquiries into "*the conditions that must be most maturely considered.*"¹²⁴ While the Commission's findings tended to corroborate the allegations advanced by both the House of Assembly and members of Lower Canada's commercial class, its recommendations offered little in the way of substantive change.¹²⁵ As summarized in the Assembly's address to the Provincial Parliament in August of 1837:

*"We are bound especially to notice in the reports in question one essential and paramount contradiction, which pervades every part of them, and forms their essence. It is, that, while they admit the reality of the greater portion of the abuses and grievances of which we have complained, the Commissioners do not recommend their removal and the destruction of the causes which have produced them."*¹²⁶

With England's refusal to grant "*the essential and constitutive reforms which we[re] demanded, and especially the application of the elective principle to the Legislative Council, the repeal of all undue privileges and monopolies, and of injurious laws,... and the establishment of a popular and responsible government,*"¹²⁷ the tense political climate of the spring and summer of 1837 – made worse by the coercive language of Lord John Russell's Ten Resolutions¹²⁸ and the threat of a growing economic crisis in England and North America – soon coalesced with the past, only to give voice to the more radical faction of the Patriote party, leading to rebellion and various acts of sedition at the close of 1837 and the winter of 1838.¹²⁹ In the months that followed the failed insurrection of Lower Canada, the British Parliament suspended the constitution and the legislature of the province, and gave extensive powers to the newly appointed Governor General, the Earl of Durham, to

¹²⁴ *Ibid.*

¹²⁵ *Ibid.* For example, the commissioners recognized that wild lands and natural resources "*should not be disposed of solely, or even principally, for the sake of revenue, and still less for the sake of a revenue with which to make ... the Executive independent of the Local Legislature*" but should in fact "*be applied to the use of the Province, and... placed under the control of the Local Legislature*" (General Report, Section III, paragraph 7). However, given that such revenues should first be applied to the permanent expenses of the Executive Government (i.e., civil list) and related operational costs (*Ibid.*); that the management of Crown resources was an entirely Executive function (First Report, paragraph 6); and that the concentration of such responsibilities was better than their division (General Report, Section III, paragraph 39), the Legislature's actual authority over such entitlements was at best questionable. Similarly, in regards to the possibility of administering the affairs of the Province through responsible ministers, accountable to the people of the Province and the elected members of the Assembly, the very concept of "*an Elective Council removable at the will of the Assembly*" was considered by Sir Charles Gray to be simply "*incompatible with the subordination of the province to the Empire*" (See Statement on Third Report).

¹²⁶ See "Address of Assembly of Lower Canada", Aug. 1837, Kennedy (1918, pp. 438-439).

¹²⁷ *Ibid.*, p. 441.

¹²⁸ See "Lord John Russell's Ten Resolutions", 6 March 1837, Kennedy (1918, pp. 434-436).

¹²⁹ For detailed analyses of the political and economic events leading to the failed uprisings of 1837 and 1838, see Buckner (1985) ch. 5 and 6; and Ouellet (1980b, ch. 11 and 12).

investigate the underlying causes of the problems arising in its North American colonies and to draft a plan for the future government of that part of its possessions (Buckner, 1985, p. 241).

4.3 Crown Resources Under British Rule: The Buller Inquiry

Because the management of Crown lands had played such an important role in the recriminations that led to the rebellious acts of 1837 and 1838, a separate commission was handed to Charles Buller to “*inquire into the past and present methods of disposing of waste lands, woods, forest and other domains and hereditaments, property of the Crown*” in the British colonies of North America.¹³⁰ While Buller’s inquiry largely corroborated the assertions made by the Lower Canada Assembly, little was done afterwards to correct the inherent flaws that permeated the entire Crown Lands management system in both Lower and Upper Canada. If anything, the Buller Inquiry provides a stark reminder of the vested interests that lay at the heart of Crown resource management, and the paradoxical role of government, as regulator and primary beneficiary of forest resource use.

Specifically, Buller found that the revenue that could have been obtained from a “*wise and careful system of management*” was “*needlessly sacrificed by the practices adopted in the disposal of public lands.*”¹³¹ The price of a government issued license was up to ten times greater than the cost of obtaining legal title to both the land and the timber growing upon it, and to the buyer’s advantage, only the first instalment of the purchase money was required in order to take possession of the said land. Before the second payment was due or could be enforced, the timber was most often cut down and the land itself abandoned. As noted in the 1837 Report on the Grievances of Lower Canada,¹³²

“parties who wish to cut timber are enabled to bid at the auctions and pay a first instalment, then cut the timber, and give themselves no further concern about either the land or the instalments. In this manner, they get the timber at about a shilling an acre, and find it answers better than to buy a license.”

¹³⁰ Commission to Charles Buller, p.3, in Buller and Durham (1839).

¹³¹ See page 34.

¹³² General Report on the Grievances of Lower Canada, Sect. III, paragraph 15, 1837, CIHM no. 9_05197. Further, James Kerr (paragraph 357 in Buller and Durham, 1839) asserted that the average price of a license to cut timber in 1838 was roughly 6s. 8d. per acre while the proprietary value attributed to the land and timber by the Land Department was little more than 3s. 2d. Moreover, Stayner mentions (paragraph 403) that the value of a forested acre of land in the US fetched as much as 1£ 5s, or more than eight times the value estimate that was used in Lower Canada in 1838.

In cases where licenses were actually issued, the absence of proper monitoring and enforcement meant that large quantities of timber were often taken in excess of what was actually licensed. Further, thanks to "*a perfect understanding among the buyers*," the upset prices of government sponsored timber auctions were seldom exceeded, thus depriving the Crown of sales that could have neared the actual market value of timber.¹³³

To make matters worse, the complex system of land grants, which could take anywhere from six months to eight years to navigate through meant that in order to achieve any likelihood of success, buyers were often forced to rely on specialized agents.¹³⁴ Hence, parallel to the legal licensing system, there arose a system of speculators and agents who actively sought to purchase Crown land purely for speculative reasons, such as seizing all merchantable timber at reduced price and/or selling the rights thereof for a profit.¹³⁵ And since land surveys were woefully inaccurate, double grants of the same land were common, and insecurity over land titles prevailed throughout the Colonies.¹³⁶ Further, given that timber in British North America (particularly in Lower Canada) was severely underpriced compared with market values in either the United Kingdom or the United States,¹³⁷ observers noted that the Crown (i.e., public)¹³⁸ was necessarily deprived of the revenues to which it was legally entitled.¹³⁹ In fact, British dependency on colonial stock and evidence of dwindling commercial supplies (pine, spruce and oak) in eastern United-States created a scarcity value that was not reflected in the market prices of Canadian timber and the licencing or timber

¹³³ See paragraphs 350 to 353 in Buller and Durham (1839).

¹³⁴ See testimony of James Kerr in Buller and Durham (1839); and testimony of John Nielson, paragraph 2018 of the "Report from the Select Committee on Timber Duties," 1835, CIHM no. 9_01807.

¹³⁵ See Durham ([1839] 1912, pp. 34-35), and paragraph 1254 in Buller and Durham (1839). Land purchases through agents were often made at the request of speculators residing either in Montreal, Québec or in the United Kingdom for the purpose of making a profit on the true market value of the acquired land or timber. The controversy surrounding one's ability to gain title to the land and its resources as opposed to the purchase of a costlier timber license was never resolved, thus giving rise to the compound problems of (1) "pseudo-settlers" who proceeded to obtain titles (i.e., location tickets) for the sole purpose of extracting timber at a fraction of the cost of a license to appropriate the same – a problem that persisted well into the 20th century with the advancement of the colonization movement (see Chapters V to VII); and (2) the issue of monopoly by timber interests whose privileged access to land and commercial timber deprived poorer settlers of the only resources they disposed of for construction purposes or to generate supplemental income in a subsistence-based rural economy (see paragraph 464 in Buller and Durham, 1839).

¹³⁶ Durham ([1839] 1912, pp. 232-242).

¹³⁷ Paragraphs 354 and 355 in Buller and Durham (1839); Letter from J. Neilson, enclosure 5, No. 1, 10 July 1835, p. 27 in "Correspondences Relating to Grievances in the Canadas," CIHM no. 9_01469.

¹³⁸ Reference to the Crown's revenue or resources, either prior to Confederation or after, should always be considered as a proxy for the "Public's" revenue or resources. Since all sources of Crown revenue were, since George the III (see Introduction to Part II) appropriable by Parliament for defraying the expenses of civil government, and therefore administered by government in the public's interests, they are in essence, public property.

¹³⁹ Durham ([1839] 1912, p 34); paragraph 350 in Buller and Durham (1839).

dues themselves.¹⁴⁰ However, the terms of the colonial trade could only be altered by the British Parliament and until the adoption of free trade by the government of Sir Robert Peel and the progressive transfer of Crown prerogatives during the 1840s, any attempt to adjust the price of standing timber to its true market value would have been strongly contested. Yet, even after unification and the surrender of all territorial and casual revenues in exchange for a civil list, the value of standing timber in early Québec never wavered from the underpriced optimum that was supported by those whose economic prosperity depended on their ability to access cheap and abundant supplies of forest resources (see Chapters V and VI).

4.4 Conclusion

At the close of the 1830s, the constitutional provisions that had sustained British Imperial rule for nearly a century were no longer viable. The concentration of decision-making authority within the ranks of an unaccountable and irresponsible executive¹⁴¹ led to a long streak of abuses, which only helped to fuel the resentment of the French and English inhabitants of Upper and Lower Canada and their demands for a greater say in the governance of political and economic affairs in the colony. As Joseph Howe would later put it to Lord Russell:

*"looking at the Executive Council, or Cabinet, as it exists in any of the North American Provinces at present, we find a small lot of individuals, responsible neither to the Queen, the Secretary of State, the Governor nor the people; who owe their seats to neither, but to their relatives and friends through whose influence and intrigues they have been appointed; and who, while they possess among them some of the best salaries and nearly all the patronage of the country, have a common interest in promoting extravagance, resisting economy, and keeping up the system exactly as it stands."*¹⁴²

While change in the ensuing decades eventually brought about a gradual shift in the seat of power, including the adoption of responsible government and the signing of a new constitution in 1867, the many resource policy failures that characterized this early period of

¹⁴⁰ On the diminishing resource stock of the United States, see paragraphs 355 and 403, in Buller and Durham (1839).

¹⁴¹ Though Durham considered that the source of the problems in Lower Canada was tied to mutual distrust between French and English ([1839] 1912, pp. 17-24), he attributed the failure of government to solve such problems to the irresponsible nature of the colonial Executive and the absence of accountable ministerial heads by whose advice the Governor should be guided (*Ibid.*, pp. 108-109). Durham concluded that "disorder [was] produced by the working of an ill-contrived constitutional system, and the practical mismanagement which these fundamental defects have generated in every department of Government" (*Ibid.*, p. 260; see also pp. 277-282).

¹⁴² Kennedy, 1918, p. 505.

Québec's nascent forest sector were never completely resolved and the problems raised in Buller inquiry on the management of Crown lands persisted well into the 20th century.

As evidence considered thus far suggests, initial changes in the institutions governing forest resource use in Lower Canada were initiated for two basic reasons. First, the system of admiralty contracts provided nothing less than a monopoly on the colony's forest resources. If illegal entrants were to safeguard investments made under the duplicitous consent of past colonial administrations, and partake in the most profitable sector of the colonial economy, then the trade needed to be placed on a more equal footing, so as to allow those without admiralty contracts to participate in its development. Second, colonial administrators in both Upper and Lower Canada were faced with increasingly recalcitrant legislative assemblies who insisted on their rights to vote on all money bills and spending measures passed before their respective legislatures. However, if the King's representatives were to maintain the independence of their councils and control over all colonial dependencies, they also needed to secure sources of revenue that were beyond the reach of the provincial legislatures. In such a context, no other supply provided as strong a constitutional authority for the pursuit of their aims than the Crown's unalienable hereditary and customary rights to all casual and territorial revenues.

In either case, the principal motive for change was clearly tied to the possibility of generating payoffs over and above the opportunity costs faced by the appointed heads of the colony and the burgeoning class of timber and lumber operators. In the end however, benefits accrued most distinctively to those who held interests in colonial land and timber. For in spite of the fact that the management of Crown resources was regarded as such a highly executive function that it could only be discharged by those in whose hands all similar powers were lodged by the Constitution, it remains that very little was done to actually enforce the requirements of the 1826 Treasury instructions.¹⁴³

Until revisions were instituted in the 1840s, the rents captured through the issuance of timber licenses remained of marginal benefit to colonial administrators. While such an observation cannot help but raise the more perplexing question of why indebted colonial

¹⁴³ With respect to the failed enforcement of the 1826 Instructions, see "Report on the Public Departments of the Province ... of Upper Canada," 1839, CIHM no. 9_00901, pp. 21, 156-162, and 305-311.

governments would allow the perpetuation of such wasteful circumstances, evidence suggests that the more probable answer to this riddle lies in the constitutional choice rules that ultimately favoured the concentration of rulership prerogatives. By 1830, the management of Crown resources was vested in the hands of a single individual who answered only to the Governor. Moreover, the custom of using the privilege of office to secure benefits to self and others was, by the time the timber and land funds were created in 1828, practically institutionalized within the colonial administration. As Lord Durham ([1839] 1912, p. 222) observed, regarding the widespread "*practice of rewarding, or attempting to reward, public services by grants of public land*":

"In both the Canadas, not only has this principle been pursued with reckless profusion, but the local Executive governments have managed, by violating or evading the instructions which they received from the Secretary of State, to add incalculably to the mischiefs that would have arisen at all events."

Consequently, the system essentially favoured the pursuit of rent-seeking interests by a limited number of players who relied on their position or status to accrue benefits for themselves at the expense of broader social or ecological considerations. As long as the manoeuvrings of political and economic entrepreneurs did not interfere with imperial control over British colonial dependencies, or the remnants of its mercantile economy, the system was allowed to perpetuate itself with all the impunity of an irresponsible administration.

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CHAPTER V: UNIFICATION, EXPERIMENTATION AND TRANSFORMATION

5.1 Introduction

Amidst the struggle for constitutional control over the Crown's resources and revenues, the actual exploitation of forest resources during the first half of the 19th century was conditioned only partly (if at all) by the political debates of the day and the limited regulatory requirements of the 1826 Treasury Instructions. However beneficial were the first set of rules in controlling access to the province's forests and in bringing order to this most prosperous sector of the colonial economy, it remains that the rate and extent of forest exploitation in British North America was essentially driven by the preferential tariffs of the home government. By providing an incentive for the investment of private capital and the development of colonial trade relations, preference effectively begot trade (Lower, 1973, p. 95). Over time, protection became coveted as a matter of national security and arguments for the maintenance of colonial relations, the transit of British goods, the immigration of its 'surplus population', and the training of British seamen became the arsenal of those whose interests lay in maintaining and capturing the surplus rents associated with the last remaining vestiges of Britain's mercantile policies.¹⁴⁴ As Creighton (1937, p. 150) put it, the timber trade was "born of the war and blockade; [and] it was maintained and continued by all the devices of a reanimated and intransigent commercial imperialism." As long as the rules governing forest resource rights were made relatively clear and duties kept to a minimum, lumbermen and timber merchants gave scarce attention to the institutional arrangements under which they conducted their operations.

Eventually, the commercial imperialism Creighton referred to did come undone towards the end of the 1840s. Responsible government was instituted and British control over the affairs of the United Province of Canada was lost in favour of locally elected officials.

¹⁴⁴ Key arguments for the maintenance of the preferential duties are presented in "Copies and extracts of communications from the Governor-General and Lieutenant Governors of the North American colonies relating to an alteration of the timber duties," 31 May 1842, CIHM no. 9_01865.

Henceforth, government would be placed in the hands of those who commanded the confidence of the elected house – as members of the *Parti Canadien* stubbornly demanded for the better part of four decades. The interesting question this raises is whether or not the theory of self-government espoused by early French nationalist, such as Pierre Bédard and Louis-Joseph Papineau, effectively changed the weaknesses and inefficiencies of the (British) representative system. In other words, to what extent did self-government and the responsibility principle improve forest resource management? Reduce waste? Create a more equitable access to Crown lands for settlement purposes? Or secure a greater share of benefits for society through more remunerative employment opportunities and greater returns to the public treasury? The purpose of this chapter is to investigate how changes in the constitutional provisions of the united Province of Canada, between 1840 and 1866, affected forest resource use outcomes and the development of forest resource institutions in particular.

5.2 Adapting Durham's Plan

With the insurrectional crises of 1837-38 and ensuing investigations by Lord Durham into the affairs of British North America, the status quo was no longer a viable option. Among the many problems facing Upper and Lower Canada was the worrisome state of public finances in either province. While Upper Canada was indisposed by a massive public debt, attributable to the expenditures it incurred through various public works (e.g., construction of the Rideau Canal), Lower Canada was grappling with a surplus that stemmed from its own political struggles, leaving the province with little to show for, other than the decrepit state of public infrastructures and the want of any functioning public services. As Durham explained, with the Assembly's refusal to grant money bills and the government's general inability to ensure the discharge of its administrative functions arose a general "immunity from taxation," which only helped to deprive the people of Lower Canada from the "institutions, which every civilized community ought to possess (Durham, [1839] 1912, p. 144)." The result, as Durham (*Ibid.*) put it, was a province afflicted by:

"a rude and imperfect administration of justice, hardly the semblance of police, no public provision for education, no lighting, and bad pavements in its cities, and means of communication so imperfect, that the loss of time, and wear and tear caused in taking any article to market, may probably be estimated at ten times the expense of good roads."

In short, Durham found the entire apparatus of government and the administration of colonial affairs to be wanting and deficient in some respect or another, and no other department fared worse nor was more important to reform in order to secure the future prosperity and wellbeing of the country than the Crown Lands Department (Durham [1839] 1912, pp. 203-242). Although the reasons invoked for the unification of Upper and Lower Canada differed for the two provinces, the idea of placing both jurisdictions under the control of a common administrative unit had the advantage of solving two distinct sets of problems with the aid of a single institutional remedy. By recalibrating the Legislature with an equal number of seats between the two provinces, providing for the free conveyance of goods across territorial boundaries, and giving sanction to the civil list principle, the Union Act of 1840 provided the necessary instruments to subsume the influence of the French majority in Lower Canada, progressively lodge all Crown revenues in the hands of the executive, and allow Upper Canada to more fully exploit its natural resources for the purpose of generating a revenue equal to its cumulated debt. As defended by the newly appointed Governor General Poulett Thomson in 1839, union between the two Canadas represented an "*indispensable*" means of affording a "*safe and practicable return to a constitutional government*" in Lower Canada and a "*no less necessary*" process of "*enable[ing] the Province [of Upper Canada] to meet her financial embarrassments, and to proceed in the development of her natural resources.*" Because of the strategic nature of the St. Lawrence Seaway, Thomson (later raised to the peerage of Baron Sydenham) believed that Lower Canada effectively held "*the key to the development of those great natural resources which providence has so lavishly bestowed on this country.*"¹⁴⁵

However, before any improvement in the administration of public affairs could be considered yet alone implemented, Sydenham first needed to deal with "*the defective system*" that was in place and the "*deep-rooted abuses that pervade[d] every department of the public service*" (Durham, [1839] 1912, p. 101). The problem, as Lord Durham had defined it, was that the executive government of Lower Canada harboured no effectual power. It was thought to be only "*slightly responsible*" in consequence of its subordination to the Colonial Department in London and the absence of responsible heads in the provincial departments

¹⁴⁵ Thomson to Legislature of Upper Canada, 7 Dec, 1839, Kennedy (1918, pp. 529-531).

(*Ibid.*, pp. 101-111). The permanent clique of public functionaries who abused the privilege of office (*Ibid.*, pp. 77-81) and the Assembly's refusal to acquiesce to the demands of a government that lacked any semblance of popular representation (*Ibid.*, pp. 72-77) only helped to make things worse. Given that the situation in the public departments in Upper Canada was far from better,¹⁴⁶ the conditions were indeed ripe for a complete overhaul of the apparatus of government within the united province.

Though the full weight of responsible government and the allegiance of Council to parliamentary representatives would take another decade to unfold, Sydenham succeeded in introducing departmental reforms that have since become part and parcel of Canada's political structure. By rendering all department heads responsible primarily to the Governor, Sydenham was able to strengthen sunity of command within and across departments, and consolidate the Governor's power over the whole of *his* council (Hodgetts, 1955, pp. 27-28, and 34).¹⁴⁷ With these changes, all public functionaries (including department heads, the Colonial Secretary, Receiver-General, Solicitor-General, etc.) were hereafter deemed accountable to the Governor of the province and could be called upon to "*retire from public service as often as any sufficient motives of public policy may suggests the expediency*" of doing so.¹⁴⁸

With the establishment of more effectual departments in every branch of the public service, all matters related to Crown lands and natural resources originating from either Upper or Lower Canada were placed under a single ministerial head, thus making the newly reformed Crown Lands Department the largest and most diversified administrative agency in the Province (Hodgetts, 1955, p. 32). However, given the size of the Department, the nature of its business, its centralized decision-making structure, the huge territorial expanse under its care, and utter absence of any effective means of communication, it was nearly impossible to provide an effectual means of coordinating the Department's work or to monitor the activities of Crown agents. Consequently, Crown land agents continuously faced strong incentives to shirk their duties or abuse the privilege of their title to broker favourable conditions for

¹⁴⁶ "Report on the Public Departments of the Province of Upper Canada," 1839, CIHM no. 9_00901.

¹⁴⁷ Responsibility to the legislature was introduced by Elgin in 1848.

¹⁴⁸ Russell to Thomson, 6 October 1839, Kennedy (1918, pp. 524-525); see also Hodgetts (1955, pp. 24-34).

lumberers and themselves.¹⁴⁹ Despite such shortfalls, the revenue-generating purpose of the Department was pursued with vigour and if the management of natural resources yielded but little benefits to provincial coffers during the 1820s and 30s, the future was to become far more lucrative. Because Crown revenues played such an important part in defraying the cost of civil government and the development of essential public works for the conveyance of economic progress (i.e., canals, locks, harbours, slides, railways, *etc.*), the revenue generating potential of Crown resources and their contribution to Canada's economic development ultimately became the underlying rationale for legislative action throughout most of the 19th century.

5.3 Revenue Enhancement

The first significant step in the government's attempt to extract greater financial dividends from Crown forests came in 1842 with the first of two controversial orders regarding "*Licenses to cut Timber off the Waste Lands of the Crown.*"¹⁵⁰ Henceforth, licenses would be issued for one year and, at the discretion of the Crown Lands agent handling the request, a timber limit could be renewed to the original holder provided that the terms and conditions applicable to the said grant were satisfactorily met. If two or more applications were made for the same limit, the disputed berth would be granted through public sale (auction) to the highest bidder, provided always that the recipient complied with the costing arrangement of the timber licenses (i.e., one fourth of the total value of the limit due on the date of purchase, along with a sufficient security for the remaining three-fourths payable by the following August 1st). While duties on cut timber (i.e., stumpage fees) and methods of measurement remained unchanged,¹⁵¹ the conditionalities of the revised rules spelled a clear break with the past. For "*every mile in length,*" license holders were instructed to "*take out 5,000 feet*" of timber and a party could hold no more than ten miles in frontage in any one

¹⁴⁹ This issue is discussed in greater depth later in this chapter.

¹⁵⁰ Instructions dated 30 March, 1842, in JIAC, Appendix T

¹⁵¹ Measurements were based on the customary average of 70 ft³ to the piece of white pine, 38 ft³ for red pine and 34 ft³ for oak (see JIAC, 1841-42, Appendix T). Duties adopted in 1828 (see Table 4.1 above) were left unchanged until after 1850.

location.¹⁵² In other words, to maintain the privilege of cutting timber upon the waste lands of the Crown, licentiates were required to meet minimum manufacturing requirements regardless of market conditions, operational costs, or the availability of suitable timber. Further, in addition to minimum production quotas, lots within licensed limits could be sold for settlement purposes at any time during the year with no advanced notice to the license holder, thus rendering the latter's rights to cut and remove timber from such parcels null and void upon sale.¹⁵³ In short, the rights of a *bona fide* operator were decidedly limited and made revocable at the Crown Agents' pleasure.

The changes introduced with the Instructions of 1842 were broadly denounced by both small and large operators but for very different reasons. Taking up the interests of smaller entrepreneurs, some 155 lumbermen operating in the Ottawa valley opined that the new rules gave unprecedented powers to Crown land agents stationed at Bytown.¹⁵⁴ By granting them leave to discriminate among applicants for timber licenses, the petitioners alleged that the surveyor and collector of timber dues on the Ottawa favoured the interests of banks and large lumber establishments in Montreal and Québec City at the expense of local lumbermen. As a result, they indicated, the larger operators of the time held exclusive rights to nearly all the best territory on the Ottawa and its major tributaries, which in turn forced smaller producers to contract with large limit holders under less than favourable terms. On the other hand, large deal manufacturers such as Hamilton and Low observed that extension of the size of timber limits to 100 square miles from the previous norm of nine square miles was instituted as a way to compensate the exhaustion of merchantable stocks on the more accessible reaches of the province's navigable waterways, and the sheer costs of establishing a logging operation (e.g., surveys, the provision of wintering supplies and infrastructure such as ramps, slides, roads, bridges, piers, and housing arrangements).¹⁵⁵ In their view, the maintenance of large timber berths provided a critical means of dealing with the ongoing dissipation of resource

¹⁵² Early annotations regarding the size of timber limits were somewhat confusing. However, contrary to the interpretations provided in Lower (1973) and Gaudreau (1999), the amount of timber to be manufactured was not 5000 ft³ per square mile but *per mile of frontage*, the actual depth of the limit being subject to the owners ability to find the requisite timber within the range covered by the limit, which by convention was placed at 10 miles. An interesting discussion on the issue of frontage versus square denominators to timber limits is presented in *The Canadian Economist*, Vol. 2, no. 2, 8 May 1847, CIHM no. 8_05050_54-5. See also discussion on this issue further in this chapter.

¹⁵³ "General Instructions to District or Resident Agents of the Crown Lands Department." Appendix EE, JLAC, 1846.

¹⁵⁴ See petitions in JLAC, 1844-45, pp. 173-175.

¹⁵⁵ See copy of "Letter from Hamilton and Low to Hon. D.B. Papineau, Commissioner of Crown Lands," 12 Dec. 1844, in Reid (1990, pp. 146-148).

rents (due to the diminishing size of remaining timber and the rising appropriation costs of having to travel further inland or upriver) and the general insecurity that limit holders faced relative to the revocable nature of their rights. In such a context, regulatory provisions needed to strive towards larger territorial holdings and more definitive forms of tenure, not smaller and less formal arrangements. For although some government estimates suggested that there remained sufficient quantities of red and white pine in the Ottawa valley to maintain production levels equal to that produced in 1845 for another 50 or more years,¹⁵⁶ reductions in terms of the quantity, size and value of remaining stocks was undeniably occurring throughout the region. As testified by a memorial to Governor General Lord Elgin in 1847, lumber merchants connected with the Ottawa trade contended that the country was effectively "*denuded of marketable timber*" within any "*reasonable distance*" to the rivers, that the standard of measurement was too high for all that remained, and that due allowance ought to be made for the manufacture of smaller size timber such as those required for railroads.¹⁵⁷ Demand for larger limits and more accommodating conditions was predicated on these observations.

The response of the Crown Lands Department came in 1846 with a revised set of rules that did little more than change the appearance of the problems at hand.¹⁵⁸ Henceforth, the size of all new limits was reduced to 25 square miles, holders of existing limits were allowed to extend their privileges until 1849 (upon compliance with applicable rules), licenses were made non-transferable, and a minimum manufacture of 1000 ft³ per square mile granted was imposed. Although the change in production requirement from 5000 to 1000 ft³ has since been interpreted by leading scholars and historians¹⁵⁹ as an admission of policy failure and the government's attempt to curtail the amount of wood that was being taken out of the forests, the reality is that the Crown Lands Department had actually doubled the amount of wood that operators were now obliged to cut. Whereas the 1842 instructions imposed a minimum intake of 5000 ft³ per mile of frontage (equal to one mile in front by ten miles in depth, or 500 ft³ per square mile), the 1846 ruling called for 1000 ft³ per square mile.¹⁶⁰

¹⁵⁶ Report of T.C. Keefer, Appendix LL, J.LAC, 1846-47.

¹⁵⁷ See copy of "Petition from the Lumber Merchants to the Governor-General," in Reid (1990, pp. 152-154).

¹⁵⁸ Canada Gazette, Crown Lands Department: Notice to Applicants for Timber Licences, 24 June 1846, p. 2938.

¹⁵⁹ For example, Lower (1973), Gaudreau (1999), Gillis and Roach (1986).

¹⁶⁰ See *The Canadian Economist*, 8 May 1847, vol. 2, no. 2, p. 12, CIHM no. 8_05050_54-5.

Despite being misinterpreted by most contemporary scholars, the subtlety was not lost on those who depended on Crown forests. As the Québec Board Trade would later report, “*remonstrance on the part of several of the leading houses in the trade*”¹⁶¹ was immediate and the government had no other choice than to bring its minimum manufacturing requirement back down to 500 ft³ per square mile.¹⁶² In other words, limits were simply distributed differently and proprietors of timber licenses were required to cut the same amount of wood as before, thus allowing the colonial administrators to maintain the revenue imperative of their resource policies, while seemingly showing themselves responsive to calls for increased competition, reduced risks of monopoly, and to a more limited extent, requests from larger firms who wished to retain the privilege of their existing limits. In truth however, very little was done to accommodate the demands of smaller operators. A non-transferability clause was added in 1846 that made it more difficult for those without financial backing to go into timber making since government-issued limits could not longer be used as collateral for credit. Combined with the stricter regulations and high costs of licences (a quarter of the total value of the limit plus securities for the remaining sum payable on the day of purchase), the new rules had the combined effect of concentrating the industry into fewer hands and of stimulating overproduction.

As evidence from the period shows, the effects of the revised rules on the timber harvest yielded predictable results. In less than three years, timber and lumber exports nearly quadrupled, jumping from a total export volume of 6,372,575 ft³ in 1842 (hard and soft woods combined) to more than 24 million ft³ in 1845, with a slightly less dramatic rise in revenues from £15,090 to more than £38,656 for the same years (see Table 5.1 below).¹⁶³ However, if one considers the actual amount of wood counted in 1845 by the Supervisor of Cullers (see numbers listed under “Culler Reports” in Table 5.1), evidence suggests that the surge in production was nearer to a six-fold increase. Needless to say, such a sudden increase in production would be precarious even in the best of times, but to pursue such strategies

¹⁶¹ Report by the Québec Board of Trade, *The Canadian Economist*, 10 April 1847, vol. 1, no. 50, p. 397.

¹⁶² Canada Gazette, Crown Lands Department: Notice to Applicants for Timber Licences, 15 August 1846, p. 3038.

¹⁶³ The timber cut on Crown Lands (as detailed in the various reports of the Crown Lands Department, culling statements and Export data) was inconsistently reported from year to year, making it difficult to obtain reliable estimates of the total harvest. Moreover, as detailed in Table 5.1, the actual amount of timber harvested and exported remains difficult to assert. For instance, in the columns indicating the amount of timber harvested during the years 1845 and 1846, the total amount of square timber culled during those years greatly exceeds the stated amount presented before the Select Committee on the Timber Trade. The absence of export data for those years makes it impossible to confirm the numbers provided for total exports.

amidst growing threats of trade reform by the sole market upon which one's entire enterprise depended was nothing less than a recipe for disaster.

Table 5.1 Comparative overview of timber production and revenues from 1841 to 1848

| YEAR | DUES COLLECTED ¹ | QUANTITY OF TIMBER ² (ft ³) | CULLER REPORTS ³ (ft ³) | EXPORTS / DEMAND ² (ft ³) |
|------|-----------------------------|---|---|---|
| 1842 | £15,090 7s 6d | ... | ... | 6,372,575 |
| 1843 | £40,399 13s 5d | ... | ... | ... |
| 1844 | £27,764 3s 0d | 28,049,963 | ... | ... |
| 1845 | £38,656 2s 7d | 27,702,344 | 41,298,974 | 24,223,000 |
| 1846 | £51,164 7s 9d | 37,300,643 | 49,312,686 | 24,242,689 |
| 1847 | £37,008 5s 2d | 44,927,253 | ... | 19,060,880 |
| 1848 | £23,885 0s 4d | 39,447,776 | 21,715 | 17,402,360 |

Sources: (1) Appendix YY, JLAC, 1849-50; (2) Timber Supply and Exports drawn from the testimony of W.W. Dawson in Answer to Question 68 of the Select Committee on the State of the Lumber Trade, Appendix P.P.P., JLAC, 1848-49; (3) Annual Statements from the Supervisor of Cullers, JLAC, available for 1845, 1846 & 1848 and square timber production only. Masts, bowsprits, deals, planks, and other articles equal to millions of additional cubic feet are not considered.

Warnings that a change in duties would spell havoc for the colonies of British North America and negatively impact Britain's economy grew in importance when the conservative government of Sir Robert Peel took over the reigns of the British Parliament in 1841.¹⁶⁴ Nevertheless, the Corn Laws of 1821 were sequentially repealed starting in 1842 and 1843 with the backing of the free trade movement and again in 1846 as part of the government's attempt to bring relief to famine stricken Ireland.¹⁶⁵ But as the aforementioned evidence suggests, the first set of reductions produced little or no effect on the trans-Atlantic timber trade, thanks in large part to Britain's nascent railway industry. In fact, the confidence of timber entrepreneurs was so great that many invested heavily in sawmills, river slides, dams and timber limits throughout the first half of 1840s (Ouellet, 1980a, pp. 503-504). Positive returns and excessive optimism in prevailing market conditions inevitably led operators to overestimate the longer term stability of British demand and by the time news of an ongoing

¹⁶⁴ For example, see "Le Canadien", July 14, 1841 and the 1842 petition bearing the names of some nine thousand supporters in Ouellet (1980a, p. 494).

¹⁶⁵ Importation Act 1846 (9 & 10 Vict., c. 22). In 1821, duties on foreign timber were set at 55s. per load and 10s. per load on colonial sources. In 1842, the difference was dropped to 29s in favour of colonial timber (30s / 1s), 24s in 1843 (25s / 1s) and 14s in 1846 (15s / 1s). The complete repeal of the differential tariffs occurred in 1860.

recession in England reached the shores of North America, the timber surplus in the booms of Québec City had already reached dangerously high proportions. As the near record production of the winter of 1845-46 began trickling into the port of Québec, prices tumbled, demand lay at a standstill, and operators with extended credit began to fold, thus plunging the colonial economies of Upper and Lower Canada into their worst financial crisis ever (see also Lower, 1973, p. 198).

During this time, the then commissioner of Crown lands and acting deputy Prime Minister for Canada East, Denis-Benjamin Papineau, was increasingly criticized for the poor management of the department under his care. A committee charged with looking in the state of the Crown Lands Department¹⁶⁶ in 1846 found widespread inefficiencies, including: "*expenditures that were out of proportions to its revenues*;" a system of local agents whose value, "*as far as the general interests of the public are concerned*," was thought "*extremely questionable*;" evidence of revenue defalcation; inadequate decentralization of decision-making authority; and a systematic recourse to the Executive Council to direct the Department's business. So strong was the perceived influence of politics over the management of Crown resources that some observers even went so far as to suggest that control over the Crown Lands Department should be made independent of any public office and thus confided to a competent and impartial individual who could uphold the interests of all Canadians.¹⁶⁷ While Papineau did oversee the worst debacle of the timber trade since it first arose during the Napoleonic wars, it would be an exaggeration of available facts to suggest that he was in any way culpable of the failures that led to the breakdown of the system. To try to mitigate the situation, obligatory production quotas and the payment of Crown dues were temporarily remitted until 1849, but the changes proved too little too late. As the head of the Department that was disapproved for its failure to recognize the injurious effects of existing regulatory measures on the stability of the trade, the economic wellbeing of the province and the requisite long-term perspective that was recognized even then as an

¹⁶⁶ See Appendix EE, JIAC, 1845-46. Interestingly, Papineau is cited on record for his dissent to the changes recommended by the commissioners.

¹⁶⁷ Rankin, C., Letter to the Governor-General on the Subject of the Crown Lands Department, 20 May 1847, CIHM no. 22084

essential part to any effective management scheme,¹⁶⁸ Papineau resigned from office in November 1847.

5.4 The Legal Foundations of Québec's Forest Institution

The "*downward progress of events*" that followed, as Lord Elgin put it in 1848, less than a year after taking over the governorship of the Province, was indeed substantial: "*Property in most of the Canadian towns...has fallen fifty per cent in value within the last three years [and] [t]hree-fourths of the commercial men are bankrupt, owing to free-trade*" (Walrond, 1872, p. 70). Yet, the social havoc that was brought about by the commercial depression that engulfed all of the colonial possessions of British North America also created opportunities for change and in March 1848, the want of confidence in the administration of the united Province forced the remaining members of the Executive Council to resign in a single body, opening the door for Lord Elgin to ask the opposing members of the legislature to form a new cabinet.¹⁶⁹ Faithful to the principles of responsible government by which he modeled his conduct,¹⁷⁰ Elgin helped secure the first elected cabinet, entirely composed of members of the Assembly in whom Parliament had bestowed its trust. By Confederation, the move towards responsible government was essentially complete and the balance of power was irrevocably held by those who controlled the plurality of votes in Parliament, thus bringing unity of power to those who held the unity of command. However, political allegiances were notoriously fickle during these first few decades of the Canadian experiment, and the administration of the Province of Canada changed no less than ten times between 1848 and 1867. As the struggle for solidarity and cohesiveness amongst elected officials gradually increased, the functions and authority of the Governor progressively waned in favour of the elected body of ministers that collectively constituted the executive government, thus paving the way for the formation of the modern cabinet (see Hodgetts, 1955, pp. 80-86).

¹⁶⁸ *The Canadian Economist*, 8 May 1847, vol. 2, no. 2, p. 12, CIHM no. 8_05050_54-5.

¹⁶⁹ Elgin to Grey, 11 March 1848, p. 6, in "Correspondence relative to the introduction of responsible government," CIHM no. 55139. The first ever responsible government in British North America was achieved a month earlier in Nova Scotia (February 1848) by Joseph Howe.

¹⁷⁰ Elgin to Earl Grey, 1847, Kennedy (1918, pp. 577-578).

Curiously, the move from representative to responsible government, a transition that was sparked by the need for greater legitimacy and accountability at the level of the executive, also brought about a much greater concentration of power. Effectively, the centralized means of control that lay at the heart of the British Colonial experiment never wavered.¹⁷¹ The reigns of command were simply transferred from the King's government to the appointed ministerial heads of the elected representatives. By Confederation, the privileges vested in the British Parliament and the Crown's representative became those of the Prime Minister and his cabinet,¹⁷² thus providing the constitutional template that would come to define relationships between provincial and territorial executives and their respective legislatures.¹⁷³ Far from rejecting the monarchy, colonial leaders, once in control of the legislature, seized the Crown's prerogatives and centralized all legislative powers in the hands of the political executive, thus perpetuating, some would later argue, the colonial order within which Canada was established (Mallory, [1974] 2011; Smith, 1991; Sproule-Jones, 1984).

Among the more important concerns that awaited the newly created Baldwin-Lafontaine administration, following the election of 1848, was the need to redress the dire economic circumstances that were in part precipitated by the failure of the timber trade. To remedy the situation, officials first needed to understand its causes and in early 1849, a Committee was assembled to inquire into the state of the lumber trade, and the factors that contributed to the ruinous conditions in which it lay.¹⁷⁴ Among other things, the inquiry confirmed that the crisis of 1846 to 1849 was largely triggered by the economic crisis of the British Market and the repeal of preferential tariffs, but was ultimately made worse by over production, which left the port of Québec City with a price-shattering surplus. As shown in Table 5.1 above, what began as a surplus of 3,479,344 ft³ in 1845 eventually grew to a staggering 25,866,373 ft³ in 1847, thus creating a dead weight stock that ultimately pre-

¹⁷¹ As Hodgetts (1955, p 110) summed it up: "The Assembly soon discovered...that its victory over the financial independent representative of the Crown had merely shifted the battle ground. Charges of irresponsibility formerly levelled at the colonial Governor and his distant superiors were now transferred to the colonists' own ministerial heads."

¹⁷² Sections 63 and 135 of the British North American Act of 1867.

¹⁷³ As discussed in Scott (1918), Cabinet within the Canadian context is understood to represent a committee of heads of departments that is presided over by the Prime Minister (p. 123), an arrangement that is reiterated at the provincial level between the Premier and his Executive Council (p. 129). And though the power that determines the existence and destruction of Cabinet progressively moved from the Crown to the legislature, and eventually to the electorate, it is Cabinet that defines the political agenda, sets policy and affects the allocation of resources within the Canadian parliamentary system, not the legislature nor the public (p. 124).

¹⁷⁴ First and Second Report of the Select Committee on the Lumber Trade, Appendix PPPP, JLAC, 1849.

empted any possible short-term recovery. Several factors were believed to have contributed to the demise of the timber trade. First, it was observed that the surplus of 1846 was in part triggered by the enormous profits of the previous seasons and the widely held belief that demand would continue to rise because of projected railroad construction in Britain and elsewhere in Europe. Second, rules obligated limit holders to manufacture minimum amounts of timber or else face the threat of forfeiture. And third, lumbermen believed that their timber limits offered little in the way of security, due to the vagaries of arbitrary changes in rules and the inherently revocable nature of resource rights to answer the changing priorities of government or satisfy the settlement imperative. Consequently, to mitigate the risk of loss, lumberers and limit holders faced strong incentives to extract the maximum value from their berths in the shortest amount of time possible. Other issues were however at stake.

As A.J. Russell (Crown Timber Agent) and W.W. Dawson (lumberman and mill-owner) underscored in their respective testimonies, the factors alluded to in the Report of the Select Committee only accounted for about a third of the over production that led to the demise of the colonial timber trade. For them, the principal cause of distress lay in the increased levels of production from privately held land. As A.J. Russell put it, *"the glut in the market was occasioned chiefly by the rush of small dealers, country storekeepers, farmers and even tradesmen, into the business, and not so much by the regular lumberers holding limits in Crown Lands."* While agreeing in principle to this assessment, W.W. Dawson furthered that in his opinion, the amount of timber produced on private land was simply disproportionate and that at least half of that volume must have been produced fraudulently, thus depriving the public of appreciable revenues and the government of any effective means of controlling timber production. Regardless of whether titles were obtained fraudulently or with the consent of the Crown Lands Department, the practice of evading higher production costs by extracting timber from privately held land (i.e., dues were applicable to timber from public sources only) had in fact changed very little since the problem was first noted in Charles Buller's report on the management of Crown lands in 1839 (see Chapter IV). Moreover, most witnesses objected to the use of fixed scaling measures to calculate timber dues as opposed to the actual measurements of the cut timber. By considering all pieces of timber to be of equal value, the system in place penalized lumberers for taking anything short

of the standard measures,¹⁷⁵ forcing the extraction of only the largest and best timber the country had to offer, which in turn promoted the needless waste of higher end timber for purposes that could just as well be answered by smaller sized trees. In other words, the rules in use essentially promoted high grading and the dissipation of resource rents. As W.W. Dawson observed, the requisite mensuration of merchantable timber forced lumbermen to seek out and extract only the very best and largest timber they could find, resulting in a high grading effect that simultaneously rid the country of its best trees and increased operating costs for everyone by forcing lumbermen to expend ever higher levels of effort to achieve comparable outputs from one year to the next:

*"The supply of the large sizes of timber are indeed falling back year by year to more and more remote localities, where greater investments of capital are necessary to carry on lumbering operations.... I see no reason, why the lumberer should be compelled to sacrifice the large timber, of which the country possesses but a limited supply, for railroad or other purposes for which small timber is equally well or better adapted, and which supply is unlimited."*¹⁷⁶

Further, lumbermen deplored the weak legal value of timber licenses for dealing with trespass and illegal appropriation, the adjudication of disputes over boundaries lines, or loss due to settler encroachment. The lack of clarity on the boundaries of timber limits or institutional coherence between licensing instruments and the distribution of patent letters to settlers led to much confusion and frustration amongst lumbermen, violent confrontation in some instances (see Gillis and Roach, 1986, pp. 16-17) and invariably, a race to deplete available resources before other claimants did. Finally, lumbermen cautioned that the loss of colonial preference negatively affected returns, which in turn made the sector even more susceptible to cut timber on private land in order to offset their increased production charges.

Although the Committee could not fathom the existence of any effectual means by which the rates of appropriation could be kept at near market levels, due to the "*unlimited extent of the lumbering country*" and the low skill requirement needed to manufacture

¹⁷⁵ Each piece of white pine was reckoned as containing 70 ft³, 38cf for red pine, and 34 ft³ in the case of oak, elm, ash, birch, basswood, and cedar. Railroad timber taken at actual measurement.

¹⁷⁶ See answers of W.W. Dawson to questions 77, 92, and 96, in Second Report, Appendix PPPP, JLAC, 1848-49.

timber,¹⁷⁷ its recommendations largely affected the development of forest institutions in the years to come. Specifically, the committee suggested that timber licenses ought to be replaced by a ground rent system that would generate as much, if not more, revenue for the State. To place a check on the risk of monopoly, ground rents were to double for every year of non-occupancy, but in exchange, lumberers should be alleviated from the responsibility of having to assume the start-up costs of operating a timber limit (i.e., one fourth down payment of the estimated timber value), this limiting incentives to cut timber quickly and recklessly. To control overall output to near market thresholds and generate stable public revenues, duties on Crown timber should be replaced with an export duty applicable to timber from both public and private sources. To increase equity amongst limit holders, capture additional gains and prevent the needless waste and destruction of the Province's best timber, the method of collecting dues should be based on the actual measurement of each piece produced (as provided by cullers). Further, the size of trees that could legally be cut should be reduced to turn the vast stretches of mature but smaller sized timber into a commercially viable resource for lumbermen, a profitable source of revenue for government, and a means of reducing pressure on larger sized timber. And finally, the Committee suggested that additional savings might be found in the reorganization of certain offices and procedures within the Crown Lands Department, including the methods used for collecting timber dues and fees from those who use public works (e.g., slides on the Ottawa).

While the Committee's proposals were meant to support the interests of both government and lumbermen, several years and a complete change of administration would be needed before the latter suggestions were ever seriously considered. In the meantime, the government acted to alleviate some of the pressures felt by lumbermen by withdrawing the threat of subdivision of existing berths, by reducing the standard of occupation (i.e., the size of berths), and by postponing minimum manufacturing requirements until after 1850.

5.4.1 The Search for Viable Institutional Solutions

In the aftermath of the crisis of 1846-49, succeeding governments engaged in an ongoing process of institutional experimentation that led to the Crown Timber act in 1849

¹⁷⁷ Other than the conditions attached to the sale of licenses, there were no specific constraints on the number of entrants that could obtain such a title, nor were they limited in terms of the maximum amount of timber they could take out.

and the adoption of a slew of amendments and regulations that more or less correspond to the equally rapid change of governments during this period. The need to clarify the legal character of timber licencing arrangements, as recommended by Select Committee on the Lumber Trade, eventually led to the adoption of the Crown Timber Act that was to provide the legal foundation for the development of forest resource institutions in Quebec until the 1970s. On May 30th, 1849, the licensing of forest resources was finally embedded into law (Act 12 Vict., c. 30). The sale of timber growing upon the public lands of the Province was officially sanctioned and provisions to limit the depredation of such resources from fraudulent or illegal means were introduced. Building on the precedent of past orders in council, licenses were formerly adopted as the instrument of choice for the issuance of resource rights. The public nature of Crown lands and forests was officially sanctioned, and the authority to establish the rates, conditions, and regulations applicable to the said licenses was placed firmly in the hands of the executive government (Section I). Henceforth, licenses would be granted for twelve months and barring the possibility of mistakes in the accuracy of surveys or of a limit being previously sold to another lumberer or claimed for settlement purposes, licenses became null and void and the government absolved itself of any responsibility or obligation to indemnify the holder of the cancelled license.

The remainder of the act focused explicitly on the rights of license holders, their responsibilities, the lien of the Crown on granted timber and the obligations of all other parties regarding licensees and the unlawful appropriation of trees from any of the Public lands (including crown, clergy or school reserves) of the Province. Specifically, licentiates were given all rights of property to the trees, timber, and lumber cut or found within the limits of their license. Any timber cut by the license holder, persons operating under contract from the latter or under illegal pretences (e.g., trespass) belonged to the licentiate, could be seized if unlawfully obtained, and damages suffered were redeemable by action or suit at law (Section II). In return, license holders were required to provide a sworn statement of the number and kinds of trees cut, the amount of saw logs produced and the number manufactured square pieces of timber, and to pay all applicable dues or else face possible seizure and detainment of timber for non-payment (Sections III to V). The remainder of the law (Sections VI to XIV) dealt with issues of illegal entry and unlawful appropriation.

To operationalize the Timber Act, an order in council was passed on September 5th 1849. Timber berths in unsurveyed lands were not to exceed ten miles in length by five miles in depth (i.e., 50 sq. miles) and half that size for surveyed townships. All licences expired the 30th of April following. A single party could hold consecutive limits. Written requests for the transfer of proprietary rights were accepted after a full year of occupation, and improvements (e.g., roads, bridges, booms, housing, cultivation) were considered sufficient proof of occupation, provided the expended amount was not less than £24. However, timber dues were left nearly identical to the rates used for the past two decades,¹⁷⁸ as were the standard measures applicable to their calculation. Minimum production levels equal to 500 ft³ per square mile (or a minimum of 2000 ft³ for the smallest limits) were maintained (but made binding after 1850 only). The discriminatory payment schedule, consisting of an advanced payment at the moment of purchase (equal to a quarter of the expected harvest plus securities for the remaining sum) was maintained. Finally, license applicants were now required to determine the exact location of their proposed limit and any error in the description or sketches furnished by the applicant or subsequent failure to conform to the conditions of sale could result in the revocation of privileges without indemnification or possibility of submitting a future bid.

In sum, operators were more or less forced to comply with the same basic set of rules that were thought to have contributed to the commercial depression that was still affecting the Province at the time. While additional securities were provided to deal with encroachment and improve access to credit, the Timber Act did little more than set in stone the rules that were applied since the 1820s and in the process, managed to evade nearly every lesson learned or recommendation that had since been pronounced by either commission or lumbermen. Compounding these problems further still were the preeminent rights of settlers over all other forms of ownership.

¹⁷⁸ Per cubic foot – white pine (square) = 0.5 d.; red pine, elm, birch, ash, tamarac = 1d., basswood, cedar, spruce = 0.5 d.; oak & walnut = 1.5 d., 1d.; Per Cord – hard wood & lath wood = 8d., soft wood = 4d.; Per saw log (12 foot) – red pine = 7d., white pine = 5d., spruce = 2.5d. All planks, boards and deals measured ad valorem. Licence holders were obligated to produce a sworn statement of products manufactured and as a deterrent against free riding. Rafts or cribs could be measured at random.

As specified in the revisions to the Crown Lands Act¹⁷⁹ of 1849, settlers could now purchase land by means of instalments in a bid to facilitate land access. Prospective settlers were given five years from the date of purchase to acquit the first of four instalments, thus making it more compelling than ever for bogus settlers to acquire land rights and to denude the property of all valuable timber before the first instalment was ever issued. The consequences were predictable. As explained by one officer of the Crown Lands Office in Québec, until land sale conditions were again changed in 1852, some 3000 sales had been made in Lower Canada, of which only 350 or so had made a payment.¹⁸⁰ The reason for such low performances in the sale and upkeep of land for settlement purposes was clear. Most would-be settlers were primarily interested in the timber, not the land. Rules were tightened in July and August 1852 to reduce the risk of speculation,¹⁸¹ but land rules were rendered so overly complex that their application was impracticable. Years elapsed before a registry of land sales was ever developed, and thanks to weak enforcement measures, anyone sufficiently motivated to defraud the government of its valuable timber could do so with little impunity.¹⁸² The struggle to find an agreeable balance between the progress of settlement and the needs of the timber industry took decades to resolve. In fact, antagonism between the two groups persisted well into the 20th century, as did its detrimental effects on the forest resources due to the insecurity created by the persistent lack of institutional fit between settlement and forest exploitation (see Chapters VI to VII).

Following yet another change of government in 1851, the interests of lumbermen were finally met with a more receptive ear. By an order in council passed August 8th, 1851, the system of instalments with its probative requirement of a deposit equal to a quarter of the estimated value of the berth was dropped. In its place, authorities followed the advice of lumbermen and imposed an annual ground rent that was set at two shillings and six pence (2s. 6d., or 50 cents)¹⁸³ per square mile, with a minimum charge of one pound for the smallest of

¹⁷⁹ Public Notice, 2 March 1849, *Canada Gazette*, no. 389, p. 6227.

¹⁸⁰ "Report on the Present System of Management of the Public Lands," Evidence by W.F. Collins, 12 April 1855, CIHM no. 9_01485, p. 137.

¹⁸¹ E.g., see notice passed on 6 Aug. 1852, *Canada Gazette*, no. 586, p. 13175.

¹⁸² For a detailed explanation of the stratagems used by would-be settlers to co-opt license holders from their timber, see "Rights of Purchasers of Public Lands and Necessary Reservations," in Report of the Commissioner of Crown Lands of Canada for the Year 1856, Appendix No. 25, J.L.A.C., 1856-57.

¹⁸³ The transition from English pound to the dollar was initiated during this period, and progressively introduced in government documents. The value of 2s. 6d., was equal to 50 cents (period currency), or \$4.00 to £1.00.

limits.¹⁸⁴ Ground rents were made to double for every year of non-occupation but revert back to original values once a minimum production of 500 ft³ of timber (or 100 saw logs) per mile was initiated. Although the new system helped to reduce the upfront costs associated with lumbering activities, it nevertheless increased the overall costs of operating a timber berth. In effect, only the largest and most successful firms were able to maintain limits in reserve, thus helping to concentrate the trade into still fewer hands. Two additional alterations were introduced. First, in what appears to be a surprisingly early recognition that the sale of unprocessed goods left some potential gains uncaptured, saw logs destined for export were hereafter charged double the applicable duties.¹⁸⁵ Second, limit holders were now required to declare upon oath the quantities and types of articles contained in each raft or parcel of timber produced and any discrepancy in the amount declared versus exported was subject to the payment of applicable duties or forfeiture and the loss of future privileges if attempts were made to evade obligatory declarations. Finally, on June 5th, 1852, notice was given that timber duties would hereafter be levied according to the actual cubic contents of each log (as determined by the measurements of government appointed cullers), and not the estimated standards of old.¹⁸⁶

Elsewhere in the province, the government experimented with other forms of arrangements. In the Mauricie area for instance, the Shawinigan falls had placed a limit on the expansion of the timber trade and an alternative arrangement was needed to defray the costs of overcoming this natural barrier. To render the region commercially viable and productive of revenues, a channel was created at the public's expense and on October 15th, 1852, notice was given in the *Canada Gazette*¹⁸⁷ for the sale of timber berths to amortize public investments. Hence, entry into the trade was rendered more competitive by auctioning timber berths on the bases of a premium to be offered in lieu of higher annual rents, with the first year's instalment payable in cash on the day of sale. Moreover, licentiates were required to defray the costs of Crown appointed surveyors to delineate their berths and an impost of

¹⁸⁴ *Canada Gazette*, 8 Aug. 1851, no. 532, pp. 11216-11218.

¹⁸⁵ The doubling of duties on exported saw logs was, according to White ([1899] 1907, p. 214), introduced to protect the interests of Canadian mill owners who alleged that American manufacturers were purchasing licenses to cut timber only to ship the produce whole to the U.S where it would then be processed.

¹⁸⁶ *Canada Gazette*, 5 June 1852, no. 575, p. 12714.

¹⁸⁷ Notice from the Crown Lands Department, 15 Oct. 1852, *Canada Gazette*, no. 593.

ten pounds currency (or \$40, as specified in the notice) for every berth of 50 square miles in size, which was then applied to roadwork in the region.

The initiative however, soon faltered as buyers got ahead of themselves and nearly everything was purchased by a few houses at above market prices.¹⁸⁸ After several years of unsuccessful attempts to obtain favour from the government in the form of a reduction, unoccupied berths were forfeited for non-payment in 1855. The system was altered slightly to reduce the consequences of speculation and offered again by public auction at the standard rent of two shillings and six pence (2s. 6d.) per square mile, the competition being the addition of a simple bonus over and above the ordinary ground rent that was payable (along with the first season's rent) at the time of sale.¹⁸⁹ The positive results of this experiment eventually led to its being applied throughout the Province by 1859.¹⁹⁰

With these additions, the founding principles of Québec's future forest resource institutions were thus firmly established. Although the overall framework was continuously adapted or modified to suit the emergent needs and interests of political and economic actors, the central tenets of the province's forestry regime (i.e., centralized governance structure, fee-based allocation of resource rights, and fixed-term tenures) remained largely unchallenged until late in the twentieth century.

5.4.2 Public Pressure and Political Interference

While the basic framework of forest institutions changed very little in the decades that followed, the operational rules that governed its application remained the subject of ongoing manipulation. For reasons that had more to do with the constant change of leadership than any genuine search for improved operations and resource use outcomes, the rules regulating forest use in Québec were changed with near clockwork regularity throughout the 19th century. As the Financial and Departmental Commission¹⁹¹ and Report of the Select Committee on the State of the Lumber Trade of Canada of 1863 would later reveal, the public

¹⁸⁸ See "Woods and Forests Branch," in Annual Report of the Commissioner of Crown Lands for the Year 1855-56, Appendix 25, JLAC, 1857.

¹⁸⁹ See "Woods and Forests," in Report of the Commissioner of Crown Lands of Canada for the Year 1858-59," Appendix no. 12, p. 11, Sessional Papers, 1860.

¹⁹⁰ Notice of the Woods and Services branch, 15 June 1860, Canada Gazette vol. 19, no. 25, p. 1735.

¹⁹¹ "First Report of the Financial and Departmental Commission," May 1863, Québec: J. Blackburn, CIHM no. 9_00964

interest was for years defined by the politically appointed head of the Department of Crown Lands. And since the interests of Commissioners wavered continuously between settlement and the lumber trade, so did the rules and ordinances that were adopted in favour of one or the other – assistant commissioners and other senior-level public servants being asked only sparingly to provide advice with little chance of it ever being considered.

An example of the growing influence of the forest sector on the decisions of elected officials and the somewhat dysfunctional workings of the executive during these early years of responsibility is found in the government's decision to reduce the charges levied on red pine in September 1852. In a report prepared by the then Commissioner of Crown Lands, John Rolph, the minister summarized the demands expressed in a series of petitions from lumbermen and municipal officials from the Ottawa region. The memorialists argued that after the collapse of 1846, which they attributed to the repeal of the preferential tariffs, the branch of the trade that was reliant on red pine witnessed a steady and permanent decline of exports (by about twenty percent per annum) with a comparable loss of value (estimated at around thirty percent) from 1847 to 1851.¹⁹² In consequence, it was alleged that the duty on red pine (one penny/ft³) represented a considerable disadvantage to those who were economically dependent on such stocks. In defence of the claims submitted by petitioners, the Commissioner cited what would eventually become the mantra of all future industry demands. In the opinion of the Commissioner, three distinctive reasons warranted a favourable response from government. Red pine entailed (1) high manufacturing costs (the smaller sized red pine required more labour to square a volume equivalent to that of white pine), (2) high extraction costs (red pine being generally found at higher elevations and thus further away from navigable waterways), and (3) high transportation costs (red pine being found further in-land and thus further from markets). As for the inevitable loss of revenue that would result from such a change, the Commissioner added that a sum equal to, and perhaps even greater than, the projected losses would be found through "*a more strict observance of the Law.*" For much of the timber produced at the time, the Commissioner openly admitted,

¹⁹² See "Memorial of the Inhabitants of the Ottawa Country," Appendix AAA., JLAC, 1852.

"fraudulently escaped [applicable duties] under the false pretence of being from private lands, an evil which, however much to be regretted, [could] not be entirely cured while so much scope for (and direct inducement to) corrupt practices exist[ed], as under the ... pernicious system and imperfect law."

Yet, however critical was the Commissioner's admonition, nothing was ever done to correct this recurring weakness in the administration of Crown Lands. A similarly perceptive act of reasoning, which the Commissioner failed to carry to its logical conclusion is captured in the latter's allusion to the sudden change of status which white pine enjoyed. Rolph explains that abundance and years of preferential treatment forced the price of white pine to be maintained artificially low (one half penny per cubic foot), which in turn induced markets to consider such supplies as being of an inferior quality.¹⁹³ *"But when left to a fair competition,"* the commissioner observed that the value of white pine had actually *"risen in the estimation of the consumer to an extent equivalent to the loss sustained"* following the repeal of the differential duties. Put differently, the willingness to pay in market situations depends on the expected value or benefit that a product will provide over and above existing opportunity costs. But in the case of red pine, the Commissioner opined that the rates applicable to the said timber probably exceeded its true market value. Fortunately for the Minister and the petitioners, institutional memory tends to be selective and runs only so deep as those who are called upon to exercise the responsibility of collective choice rights at any given point in time. Hence, in none of the documents requesting a reduction in duties on red pine is there mention of the problem of over production that was occasioned by the speculative spirit of lumbermen on the eve of the repeal, the backlog of supplies it created, and the long-term negative effects this had on demand and price.

The order to reduce the tariff on red pine was passed after a few months of discussion on the subject. However, the decision to change this key payoff rule was not without controversy. In the months that followed the change of duty, a committee was established to investigate the circumstances connected with the tariff reduction.¹⁹⁴ While agreeing in principle to the petitioners' demands, some members of the Executive Council were of the opinion that any alteration of existing duties needed to be considered in the context of a

¹⁹³ John Rolph, Report dated 24 July 1852, Appendix AAA, JLAC, 1852. CIHM no. 9_00955.

¹⁹⁴ See Report, 9 Nov. 1852, and related Minutes of Evidence in Appendix AAA, JLAC, 1852.

change of the system as a whole, based on the 1849 recommendation that an export tax be levied on all sources (i.e., private and public) of timber. However, for those holding red pine liabilities, time was of the essence and although an export tax would have created a more level playing field, the process for achieving such a change was necessarily longer. Pending the arrival of the past season's harvest in the Port of Québec – at which time applicable duties would be levied (i.e., August-September) – the frequency of personal interactions between lumbermen and members of the executive suddenly increased. Though everyone involved would later deny that any undue traffic of influence helped to precipitate the decision to accommodate lumbermen, the ease with which business leaders were able to call upon individual members of the executive and the attention they received pointed to a much closer relationship than what could publically be admitted. Moreover, because the proceedings of the executive were conducted in secrecy (as they remain to this day), it is impossible to tell who decided what, when and how. Consequently, responses to the inquiry tended to be vague. Some members of the executive could not recall when the decision to reduce the tariff was made, others were unsure of their presence, and none could explain how the Commissioner of Crown Lands could arbitrarily decide to apply the reduction retroactively, and at a great loss of revenue for the Province.

In spite of such changes, the set of amendments introduced in 1851 and 1852 did improve the government's share of resource-related dividends. Receipts from the sale of Crown timber slowly edged upwards from £22,270 in 1848 to £30,318 in 1851, and then jumped to £53,013 in 1852 following implementation of the ground rent system.¹⁹⁵ Similarly, cullers reported counting 19,707,792 ft³ of squared timber originating from (or near) Canada East (i.e., Québec) in 1850 and 34,966,454 ft³ in 1852. As these numbers reveal, the worst of the economic storm was now over and a new wave of optimism was slowly taking hold. But more importantly, the figures show that the lowering of the preferential tariffs had few if any long-term effects on the timber trade. This, according to Lower (1973, pp. 93-95), is attributable to two key factors. First, transportation costs were reduced to a bare minimum by employing mostly old, worn-out ships that were manned by poorly paid crews; and second, in comparison to the United States or the Baltics, timber supplies in British North America were

¹⁹⁵ See Reports of the Commissioner of Crown Lands for 1851 and 1852 respectively, JLAC.

relatively cheap. In effect, Canadian timber had been (Buller, 1939) and effectively remained notoriously undervalued. As the Supervisor of Cullers would later reveal, after having visited the major commercial ports of Europe, Baltic timber rose by 44% in value between 1838 and 1860, while during the same period, the value of Canadian supplies increased by only 17%. The reason was “*mainly due to over-production,*” as the Supervisor of Cullers put it, which meant that the Province of Canada was “*merely denuding the country of [its] best timber, without benefitting any one.*”¹⁹⁶ Instead of extracting the maximum amount of benefit from each tree, as customarily practiced in the privately owned forests of the Baltic region, the timber trade in Canada was established as a volume-based industry, which meant that profits were generated through large-scale production of relatively unprocessed commodity goods (Ross, 1995), instead of more remunerative and less resource intensive modes of production associated with higher-end goods.

5.4.3 Inquiry on the Management of Crown Forests

For those who were actively involved in the trade during this period, the renewed stability and prosperity of the forest sector was primarily attributable to the resource policies that were subsequently adopted. At least, such was the opinion of the lumbermen who testified before a Select Committee on the management of the Public Lands¹⁹⁷ in May of 1855. According to lumbermen and mill owners such as David Roblin, James H. Burke, William Hamilton, George, Hamilton, Allan Gilmour and long-time Crown timber agent at Bytown, A.J. Russell, the set of institutional arrangements that were then in use offered near ideal conditions. Providing the best possible returns to government and lumbermen alike, forest resource rules prevented the needless waste of timber and the monopolization of available stocks, offered settlers a nearby market wherein they could offer their produce and labour, and helped to improve public infrastructures (e.g., roads and bridges) for the advancement of agriculture and the settlement of the country. As such, any change that might affect the nature of licensed tenures (e.g., land sales) or impose the production of more refined articles (e.g., sawn lumber) would necessarily imperil the commercial interests of the province and the revenues upon which government depended. Further to the ruin that would

¹⁹⁶ See “Report of the Supervisor of Cullers on the Lumber Trade,” September 10, 1861, in Sessional Papers (No. 11), Appendix No. 33, 1862.

¹⁹⁷ See “Report of the Select Committee Appointed to Enquire and Report upon the Present System of Management of the Public Lands,” Ordered, by the Legislative Assembly, to be Printed, 12th April, 1855. CIHM no. 9_01485.

be occasioned amongst those who had invested their capital, advocates of the existing system warned that any alteration of rules would place the trade in the hands of speculators, cause monopoly and bring an end to trans-Atlantic shipping from Québec.

However, important changes were afoot and if the lumbermen who were called to testify either deliberately or unwittingly failed to recognize the emergent reality within which they operated, others were not as shy in voicing their opinions on the state of affairs. In his capacity as the Commissioner of the British American Land Company of Lower Canada, the chair of the Committee, Alexander T. Galt,¹⁹⁸ vouched that the trade in square timber was nothing short of a *"profligate waste of one of the greatest sources of Provincial wealth."* In Galt's view, *"the value of our Forests"* in the Province of Canada, *"is precisely in proportion to the amount of labour expended in preparing the timber for market, and that therefore the more crude and raw state in which it is exported, the less value the trade is to the Province."* Put differently, Galt recognized that the trade in Canadian wood products was essentially volume-based and that those who engaged in it limited their expenses by all possible means. If the system was to change and produce greater value, incentives would be needed. As such, in order to *"cause capital, skill and labour to be... embarked in the trade,"* there needed to be *"greater inducements to manufacture [timber] into sawn lumber."* Galt argued that the production of square timber tended to *"waste the finest portion of the wood"* at the expense of those investments that could potentially further the prosperity and social welfare of the Province. If incentives to invest in value added production are insufficient or non-existent, then few will be tempted to risk their capital into such ventures. As already mentioned in the case of white pine, when a pool of resources is undervalued, those who engage in its exploitation will likewise be induced to minimize the investments needed to extract value from each unit of resource. Hence, the problem Galt contended was not the lack of specific inducements but rather that the rates charged for Crown timber were simply too low to compel operators into producing more refined articles. Recognizing that the market for Canadian wood products was undeniably shifting towards the United States and *"in the direction of sawn lumber,"* Galt urged the need for *"an immediate and considerable advance"* in the rates charged for the privilege of cutting trees on public lands. In any event, such

¹⁹⁸ *Ibid.*, Evidence by Mr. Alexander T. Galt, pp. 26-33.

production would invariably contribute to “*the more rapid settlement and prosperity*” of the country. However, this being said, it would be unjust to portray all lumbermen as being only interested in short term gains. As those who testified before the Committee clearly illustrated, timbering during the early days of the trade was in no way cheap and substantial investments were required before a single stick could be gotten out of the woods.¹⁹⁹ In concluding his assessment of the current state of forest resource use in the Province, Galt alluded to the “*absolute monopoly of timber limits*”²⁰⁰ that was “*enjoyed by a few large operators*” and what he considered to be the ultimate impediment to change in this most important sector of the colonial economy:

“Of all the varied branches of the Crown Lands Department, which imperatively demand inspection and revision, there is none..that exceeds in importance the disposal of timber; and that it has not met with the attention it deserves, can only be attributed to the fact, that from this source alone, has the Department been enabled to obtain any available revenue.”

Evidently, Galt was not alone in his assessment of the inefficiencies associated with the management and use of forests in the Province. For William Spragge, Chief Clerk of the Crown Lands Department,²⁰¹ the squaring of timber was an eminently wasteful process that rendered the greatest portion of the tree useless and destined to rot on the ground. The slightest defect or bend in the tree consigned everything above the imperfection to the same fate as the pieces removed through squaring. But with the manufacture of saw logs, deals, boards, or planks, Spragge estimated that up to three-fourths of the wood lost through squaring would find its way to the market. In addition to reducing the amount of waste

¹⁹⁹ As reported by Perry (1862, p. 33), the timber trade required substantial investments on the part of limit holders. In addition to the procurement of license, the lumberer had to establish a lumber camp – a log building (30 by 60 feet) and clear land for a farm capable of producing oats, potatoes and hay; operators typically needed 20 horses, 10 or 12 oxen, cattle; roads to the nearest streams and bridges. In other words, some £500 to £5,000 (roughly \$2000 to \$20,000 dollars) of groundwork was needed before a single stick of timber could be taken off the limit. The rafts sent to Québec consisted of 70 to 80 cribs or 75,000 to 100,000 ft³ of timber and had to travel an average of 500 miles before arriving at the port of Québec. As for the pork consumed in the camps, it had to be imported from the United States and travel nearly 1700 miles. On the Ottawa River alone, it was estimated that some 25,000 men worked in the timber trade, consuming over 26,000 tons of agricultural produce every year.

²⁰⁰ Allusions to monopoly conditions were frequent during the 19th century, but difficult to ascertain on the basis of available evidence. According to the testimony provided by A.J. Russell (p. 165-166 of the Report on the Management of Public Lands), some 900 timber licenses were issued annually in the Province, which were held by nearly 600 parties. Russell did however concede that there was a concentration of large timber berths in the more productive regions of the Province. Further, if one considers the high costs of entry, the fact that smaller operations often acted under contract from larger firms or for various saw mills, then the relative number of parties who were decidedly in control of the trade was undoubtedly more restricted than the 600 parties alluded to by Russell.

²⁰¹ See “Report on the Management of Public Lands,” Evidence provided by William Spragge, pp. 101-102.

produced, the production of sawn lumber could potentially increase the amount of revenue taken in by the Province, contribute to more stable employment opportunities, and encourage the establishment of more permanent and economically viable communities. The position expressed by Spragge was in sharp contrast to the views held by the lumbermen who were called to testify. The trade in square timber, as they pointed out, existed because consumers in Britain and elsewhere command it and because the Crown dues associated with the production of such timber was twice the amount exacted from saw logs. Needless to say, no allusion was made of the fact that the reduced rates on saw logs stemmed from nearly three decades of lobbying efforts by those engaged in the sawn lumber industry or the petitions submitted by the very same actors for more flexibility in the standards applicable to square timber since large sized trees were becoming increasingly scarce. In Spragge's view, the Province had reached a threshold and the wasteful exploitation of forest resources could neither be sustained nor economically condoned. As he put it,

"it is, unfortunately, to much a matter of certainty that what used to be designated our inexhaustible supplies of timber, are rapidly disappearing and sound policy would suggest that inducements should be offered for economising that which still stands in the forests."

With uncanny foresight Spragge advanced that the vast amounts of British capital that were by then being engulfed in the construction of railways, the maintenance of provincial or municipal funds, or in support of military expenses would ultimately drain the Provincial economy with debt and interests. Devising more efficient ways of extracting value from the Province's natural resources was, for Spragge, as much a necessity as a matter of sound economic policy. While contested by others who were called to testify before the Committee, Spragge would eventually be proven right. In effect, the scenario he alluded to is precisely what occurred in Québec following Confederation (see Chapter VI).

In his concluding remarks, Spragge reiterated the sentiment shared by Galt regarding the negative effects of political influence on the management of the Department. In calling attention to the problem of political change and the episodic appointment of leaders who believe that it was *"incumbent upon [them] to distinguish [their] advent to office,"* Spragge advocated for nothing less than a change in the rules governing public decision-making. In

short, the ability of elected officials to alter or change rules, to suit political motivations, should be constrained. As he put it, *"Political heads of the Departments must hold their political levees."* For Spragge, *"the working out of a good system"* entails an *a priori* agreement on what should constitute such a system. Implementation would require the appointment of two competent functionaries with *"unimpeachable integrity"* to direct the eastern and western divisions of the Province respectively, and *"lest the office should become one with which to reward political services"*, neither *"should be paid extravagantly."* In this way,

"the party holding [Office] should be made responsible for the whole business, and accountable so that the principles upon which the Department is required to be conducted, shall be faithfully and invariably observed, and rigid economy in its various branches carefully practised."

In other words, the way in which public lands and resources ought to be managed should be framed by a common set of principles, established at the constitutional level, which would make it iteratively irrelevant who held the reins of the executive government, since responsibility would be informed by administrative rather than political accountability. Regardless of the practicability of such a system, it is clear that the status-quo left potential gains uncaptured and likewise created opportunities for political interference.

In spite of the fact that members of the 1855 Committee were *"unanimous"* in *"their opinion that important modifications of the ... system [were] imperatively required,"* the lack of agreement on the nature of the problem at hand prevented the formulation of more specific recommendations. Remarkably, other than Galt and Spragge, none of the witnesses who were called upon to testify seemed to have any sense that the forest sector and land granting division of the Province were, by the middle of the 1850s, at the cusp of the most significant change to arise since the Napoleonic blockade of 1806.

5.5 Reciprocity, Resource Rights, and Early Environmental Awareness

The 1850s mark an important transition in the evolution of forest resource institutions within the greater Canadian context for at least three fundamental reasons. The first of these concerns the advent of American influence on the management and use of public forests. The

second relates to the struggle for resource rights and access to land that pitted the interests of lumbermen against those of settlers. And the third concerns the realisation that lumbering activities and deforestation in particular, were producing harmful externalities to settlers and agrarian communities, leading to a surge of interest for the protection of forests and an acknowledgement of the environmental services that forests provide. The following sections sequentially address these three factors.

5.5.1 American Influence

Following the repeal of the corn laws²⁰² and the depression that followed,²⁰³ free trade suddenly gained widespread appeal amongst politicians and the commercial class. For the problem occasioned by the removal of colonial preference did not lie, as Lord Elgin understood it, with the introduction of free trade per se but with the commercial restrictions that were left in place: "*it is the inconsistency of Imperial legislation, and not the adoption of one policy rather than another, which is the bane of the colonies.*"²⁰⁴ To redress the dire economic situation that threatened the commercial interests and political stability of the Province, advocates from all sides of the debate pressed for the repeal the navigation laws that gave British vessels a virtual monopoly over the conveyance of Canadian goods, and the adoption of a reciprocal trading arrangement between Canada and the United States. While of no direct consequence to the timber trade per se,²⁰⁵ remonstrance by the government and nearly every board of trade of the Province ultimately forced the British Parliament to relinquish its navigational policies in June of 1849,²⁰⁶ thus removing one of the major irritants that was by then threatening the connection between Canada and the mother country. However, distrust over the local government's capacity to secure economic recovery within the Province ran high and when Lord Elgin assented the controversial Rebellion Losses Bill on April 25, 1849, as a show of faith in the principles of responsible government, the situation took a turn for the worst. Rioting in Montreal erupted, its Parliament House burned

²⁰² "Correspondence with the colonies respecting differential duties and the navigation laws", London: HMSO, 1847. CIHM no. 9_01911.

²⁰³ "Correspondence between the Governor-General of Canada and the Secretary of State for the Colonial Department upon the operation of the navigation laws," London: W. Clowes, 1848. CIHM no. 9_01920.

²⁰⁴ See Walrond (1872), *Letters and Journals of James, Eighth Earl of Elgin*, p. 60.

²⁰⁵ Timber exports from Québec City were "*carried on by British ships especially employed in that branch of the trade,*" which is "*neither materially affected nor does it materially influence the commerce*" of Canada's other export trades. See "Memorandum of the Executive Council on the subject of the Navigation Laws," No. 54 in Appendix C, JLAC. 1849.

²⁰⁶ 12 & 13 Vict., cap 29 (Imp.).

down, and talk of annexation with the United States gained widespread popularity. An alternative solution was at once required. In Elgin's view, the loyalty of Canadians and the pursuance of a constitutional government could only be maintained by placing the produce of Canadian labour on an equal footing with that which was produced in the United States. As Elgin put it to Prime Minister Lord John Russell:

*"the disaffection now existing in Canada, whatever be the forms with which it may clothe itself, is due mainly to commercial causes. I do not say that there is no discontent on political grounds. Powerful individuals and even classes of men are, I am well aware, dissatisfied with the conduct of affairs. But I make bold to affirm that so general is the belief that, under the present circumstances of our commercial condition, the colonists pay a heavy pecuniary fine for their fidelity to Great Britain, that nothing but the existence to an unwonted degree of political contentment among the masses has prevented the cry for annexation from spreading, like wildfire, through the Province."*²⁰⁷

The pace of commerce nevertheless picked up after 1850 and the annexation movement withered away by its own accord. Yet, efforts to secure a reciprocal trading agreement between the United States and Canada failed, year after year, to arouse even the slightest interests from the American Congress. Finally, after more than six years of aborted negotiations, Lord Elgin himself was sent to Washington in the spring of 1854 with the hope that his personal attendance would bring the matter to a successful close. Within days, an agreement was reached on the terms of a treaty. In exchange for the free admission of certain American products, legal entry in the colonial herring and mackerel fisheries, and equal rights to the St. Lawrence seaway and system of canals, the Canadians gained a duty free access to the rapidly expanding American economy for nearly all of their most important staple products, including: grain, flour, fruit, meats, coal, timber and lumber.

However significant this achievement was for Elgin, it was undoubtedly not as clear then as it would later become, as Lower (1938, p.102) pointed out, that by "*giving value to Canadian natural resources,*" reciprocity ultimately resulted in a "*more or less uncontrolled American exploitation of Canadian forests*" (at least with regards to Ontario). Or as he framed it in the title to his 1938 classic account of the history of the lumber trade between Canada and the United States, the Reciprocity Treaty practically paved the way for the

²⁰⁷ See Walrond 1872, Letters and Journals of James, Eighth Earl of Elgin, p.103.

"*North American Assault on the Canadian Forests.*" In effect, free trade with the United States and its need for lumber of all sizes and qualities made for near perfect market conditions. Wood was required to sustain the growth of American industries and whether timbers were sent whole or roughly cut into variously sized boards and planks mattered little.

²⁰⁸ Yet, change was gradual and what some characterised as a "*bonanza for industry and government alike*" (Gillis and Roach, 1986, p. 29), developed much more unevenly than what some scholars suggests (e.g., Gaudreau, 1999). With regards to the Province of Canada, American investments primarily flowed to the Upper province due to its comparative advantage (canals & railways linking the Ottawa Valley to the Great Lakes), while the bulk of Québec's timber and lumber production continued to serve the British Market well into 20th century (Lower, 1938). As result, by 1869, over 99% of Ontario's forest-related exports were destined for American markets, whereas on average, Québec exported only 14% of its overall production to the United States between 1869 and 1879 (Hough, 1880, pp. 464-465).²⁰⁹ Nevertheless, the importance of the American market only grew over time, and as its purchasing power increased, so did its ability to influence the course of Canadian public policy. As Lower aptly put it: "no storehouse of raw materials needed by the outside world can have much mastery over its destiny" (1973, p.119).

5.5.2 The Struggle for Resource Rights

The other major factor that seems to have eluded the grasp of the 1855 Committee charged with looking into the management of Public Lands (see Section 5.4.3) was the availability of land itself. As the Commissioner of Crown Lands asserted but a year after the 1855 inquiry, "*Government has now no more land to offer to settlers in that part of the Province considered the most favourable for settlement.... What have we remaining is therefore now more than ever an important question, and one that practically presses itself upon us.*"²¹⁰ A very important question indeed, for from this point onwards, the interests of lumbermen and settlers would invariably become intertwined in a common struggle over rights to the public domain. According to observers at the time, the best arable land in the

²⁰⁸ Lower (1938, p. 46) described these conditions as follows: "North America...wanted a mass-production article: trees had to be cut down and cut up at lightning speed and no one cared whether a board was longer of shorter than it ought to be, whether it was made with non-rectangular edges or carried the marks of the saw on its side."

²⁰⁹ Hough, F.B., 1880. Report Upon Forestry. Washington: Government Printing Office.

²¹⁰ See "A General View of Public Lands," in Report of the Commissioner of Crown Lands of Canada for the Year 1856, Appendix No. 25, JALC, 1857.

province had been disposed of and the settlement frontier was now the forest frontier, or as Commissioner Joseph Cauchon put it, "*all the lands Government now has for sale are in lumbering countries.*"²¹¹ However, after years of neglect, the problems that were occasioned by the preeminent rights of settlers over those of limit holders remained entirely unresolved. As written, the law allowed settlers to purchase land rights under licensed occupation and claim not only the trees that were left standing but in fact other investment that a license holder might have consented to, including efforts to improve access and removal of forest timber (e.g., roads, slides, dams and booms). "*By this simple process,*" Cauchon states, "*an unscrupulous man might become owner of a raft of timber worth a thousand pounds by a trifling outlay in the course of a few weeks; besides, he might keep the land if it were worth having.*"²¹² Further, since works designed to facilitate timber removal were legally transferred to the purchaser of any lot, in which such improvements might be located, it was not uncommon for such settlers to "*compel the lumberers to pay [a] toll for making use of the works they themselves have constructed at considerable cost,*" causing obstruction in some cases, or obliging the lumberer to remove his timber by some alternate and generally more costly arrangement.²¹³

Yet, the decision to alienate timber while withholding the actual rights to the soil made sense for government, lumbermen, and settlers alike. In essence, the licencing of resource rights allowed the government to collect revenues from two distinct sources: (1) the ground rent extracted from concessionary sales of Public Lands (i.e., timber berths or limits) and the dues received for each tree that was appropriated; and (2) the proceeds generated (theoretically thereafter) by the sale of such lands to settlers. Similarly to the transition experienced by nearly every agro-based society in the world (Williams, 2003), these two considerations rendered the conversion of forestland not only possible but in fact essential for the expansion of settlement. As a contemporary observer put it:

"[t]he wild lands or Crown Domain possess as fiscal elements, two distinct values – the first of their natural productions, such as forests and minerals, are legitimate

²¹¹ *Ibid.*, see section titled "Rights of Purchasers of Public Lands and Necessary Reservations."

²¹² *Ibid.*

²¹³ *Ibid.*

objects from which revenue may and ought to be derived; the second is the value of the soil, and how that value should be employed in promoting immigration."²¹⁴

By improving access to the remote parts of the Province, and clearing the land of its timber, the lumberer answered the needs of the settler for unoccupied lands, and by establishing their homesteads within reach of the lumbering country, the settler found a needy market in want of his industry.²¹⁵ In sum, "[t]here could not possibly exist a state of things more favourable to colonization."²¹⁶ Until that is, the struggle for land and resources became a contest over rights to the very same assets.

In a context dominated by the square timber industry, annual licensing arrangements and ground rents were well suited to the needs of lumbermen whose interest in land was limited to the extraction of marketable timber. Although imposts on Crown timber were regularly contested as a burden for the legitimate producer, the standard rate of one half penny per cubic foot (as charged on white and red pine in the mid 50s) represented little more than one-tenth of the total capital needed to manufacture and transport squared timber to market.²¹⁷ In fact, the rates charged on timber taken from public lands changed only modestly between 1828 and 1867. For the American lumbermen who eventually ventured north following the adoption of free trade, the advantages of such a system were undoubtedly clear, but for those engaged in more capital-intensive forms of production, requiring the use of saw mills and a permanent work force, the system offered a more limited security. As the shift towards sawn lumber furthered the critical weight of that portion of the industry which favoured longer term and less costly tenure arrangements, government slowly retracted from its staunch opposition to leaving any "*portion of the timber lands wholly unproductive, either*

²¹⁴ Perry 1862. The staple trade of Canada. CIHM no. 23012, p. 38.

²¹⁵ Lumbermen required substantial amounts of agricultural produce to support their activities. Small (1884, p.6) described the needs of one firm in the Ottawa Valley as follows: "750 tons of hay, 25,000 bushels of oats, 5,000 bushels of turnips, 6,000 bushels of potatoes, 1,000 barrels of pork, 9,000 barrels of flour, 2,000 barrels of oatmeal, ... or in round figures 2,400 tons of agricultural produce." Small, H.B. 1884. Canadian Forests: Forest Trees, Timber and Forest Products. Montreal: Dawson Brothers. CIHM no. 13683.

²¹⁶ See section "Public Works on the St. Maurice," in "Report of the Commissioner of Crown Lands of Canada for the Year 1856," Appendix No. 25, JALC, 1857.

²¹⁷ See "Memorial of the Inhabitants of the Ottawa Country, interested in the timber trade of the Province of Canada, January 13th, 1852, in "Return to an Address from the Legislative Assembly to His Excellency, the Governor-General." Appendix A.A.A, JLAC, 1853.

in ground rents or duties,"²¹⁸ allowing for the gradual integration of more flexibility in the allocation of resource rights during the 1860s.

For in spite of the idea that it was "*a well established principle of public policy, that in no case can the Government properly interfere to the advantage of individuals by setting aside principles or abrogating laws or regulations by which the community at large is governed,*" it remains that the weight of external political-economic influence only increased over time, as did the Department's willingness to comply with the wants and needs of various sets of actors. As the Commissioner of Crown lands admitted in his Report for the year 1856,

*"There is perhaps no other Department of the Government through which such preserving efforts have been made to secure special advantage to particular interests as has been the case in relation to the Woods and Forests."*²¹⁹

Given that the "*executive government of the Province holds in its power the administration of all the waste lands of the Crown, and also their final disposal,*"²²⁰ it is little wonder that elected officials should bear the brunt of solicitation from settlers and lumberers. However, thanks to its obstinate reluctance to appear in favour of one group over another, or to advocate policies that could potentially upset either positions, inconsistencies in the rules governing forest and land resources were either maintained, or simply left unenforced, depending on whose attendance such discretionary authority fell. In any event, office tenures were so short during the formative years of the Canadian experiment, that ministerial heads were sooner replaced than allowed to carry out any plan of consequence. But whenever change was allowed to proceed, the focus was decidedly geared towards special interests, rather than any objectifiable search for greater allocative efficiency or distributional equity. As one observer noted,

*"Governments have been always in the habit of treating the [timber] trade as a subordinate agent, useful in a political point of view [and subject] to such a multitude of regulations [as may be] issued for its own benefit."*²²¹

²¹⁸ See section "Woods and Forests Resumed," in "Report of the Commissioner of Crown Lands of Canada for the Year 1856," Appendix No. 25, J.A.L.C, 1857.

²¹⁹ Ibid..

²²⁰ Perry 1862. The staple trade of Canada. CIHM no. 23012, p. 38.

²²¹ Ibid., p. 41.

So in spite of the virtues that Commissioner Cauchon professed to instil in the Woods and Forest division, one of the very first concessions he made following the adoption of Reciprocity was a repeal by order (July 17, 1856) of the surcharge imposed on the export of unprocessed saw logs (as per the third clause of the timber regulations of August 7, 1851) – a tax which had been adopted to favour local investments in the sawn lumber industry, better employment conditions and a more productive use of available resources. More puzzling still, is the fact that the decision to remove the saw log preference came just over a year after a Report on Trade and Commerce²²² lamented Canada's very dependence on foreign manufactured goods, its commodity driven resource economy and the lack of foresight or legislative encouragement to correct the exploitive inefficiencies of Canada's economy. A more telling (and contradictory) policy stance could scarcely be imagined.

Obviously, the struggle to achieve a balance between lumbering interests and settlement did not dissipate over time. In late 1859, a series of inquiries conducted by the newly appointed Commissioner of Crown Lands, P.M. Vankoughnet, reinstated the importance of public forests as a source of revenue for the country and of remuneration for industry. As long as "*resources are properly developed and husbanded,*" Vankoughnet asserted, "*and the great destruction arising from fire and other causes, which annually takes place, can be checked,*" the forests of Canada will provide "*a source of almost constant wealth.*"²²³ However, achieving such ends required immediate action on the existing causes of abuse and a change of attitude in the administration of the Department itself. While Vankoughnet undoubtedly did more than any of his predecessors to highlight the exhaustible nature of forest resources and the dynamics that lead to overexploitation, his efforts were not without controversy, nor were they completely distilled of self-interest.

In his report for the year 1860, Vankoughnet found "*a large accumulation of indebtedness arising from the non-payment of dues from previous years*" that invariably left the door open for fraud.²²⁴ Two specific conditions were thought to have induced this unenviable state of affairs. First, "*Government,*" the Commissioner observed, had been in the

²²² See "Manufacturers," under "General Remarks," in the "Report on Trade and Commerce," Appendix DDDD, JLAC, 1856.

²²³ "Report of the Commissioner of Crown Lands" for the year 1859, Sessional Papers no. 12, 1860.

²²⁴ See Report of the Commissioner of Crown Lands for the Year 1860, in Appendix no. 15, Section on Woods and Forests, Sessional Papers, 1861. The remainder of the quotations used in this section are taken from this section of the report.

habit of giving "*all possible facilities, credit, etc., to the lumberers, in order to encourage as large an export as possible.*" The problem is that production tended to exceed demand, thus forcing all parties to sell their timber for less than its true value. But since such articles "*cannot be produced again short of 150 or 200 years,*" the waste was thought incalculable.²²⁵ "It is true," the Commissioner added, that Canada has "*a large supply of raw material, but we must bear in mind that our forests are not inexhaustible. It is well known that over-production is one of the greatest evils to which the trade is subject, and this very practice of allowing timber dues to get into arrear encourages this over-production.*" Complicating matters even further were the *de facto* open access conditions that allowed unauthorized entrants to take part in the timber trade when conditions appeared favourable. "*In some sections of the Province,*" Vankoughnet argued, the forests are treated "*as if they were public commons, where everybody might enter, and cut and slash as [they] pleased.*" Consequently, whenever "*seasons of partial prosperity... arrived, a great rush into the manufacture of lumber, and particularly of hewed lumber, ...followed, nearly always... [by] over-production*" and of "*badly manufactured articles*" at that. Having no timber berth of their own, those engaged in such superfluous production tended to rely on "*trespassing in the public forest, or in fraudulently obtaining timbered lots out of a lumberer's license.*"

The second problem was that "*so long as the lumber lies within the Province, the owner, producer or exporter, may be considered as having his timber in bond,*" and thus pays only as per the amount exported. This, the Commissioner argued, arose from the erroneous conception that timber dues were akin to a duty on exports. As explained by Vankoughnet, timber dues and ground rents represent the value attributed to standing trees. It is the cost of raw material, the market value of trees which, "*when cut on public lands, the lumberers purchase from the Government, and when cut on private lands, they purchase from the owners.*" Consequently, the purchase of raw materials from which lumber is produced exacts a price that cannot be differed for an ulterior payment such as an export tax that could only be imposed at the moment of sale and upon the amount sold. In this sense, dues were seen as a precondition to ownership and entitlement to benefits.

²²⁵ "Report of the Supervisor of Cullers on the Lumber Trade," September 10, 1861, Appendix no. 33, Sessional Papers, 1862.

To remedy the situation, the Commissioner sought to reinforce laws against trespass and further legitimise the trade by "*directing the attention of those engaged in it to the importance of economising the public forests, and of producing a well manufactured article.*" A fixed date was adopted for the payment of timber dues and accumulated arrears (30th of November) in the absence of which, a six per cent per annum interest would be charged and exports prohibited until all dues were paid in full. Collectors of Customs at ports throughout Upper Canada were given authority to refuse clearance to any vessel carrying lumber from Canada to the United States without prior certification from a Crown Timber Agent. "[D]iscriminating and descriptive surveys" were to be conducted to assign land use rights according to the arable qualities of the soil, allowing for the identification of those portions of the territory that could support cultivation (i.e., settlement) versus those that should be maintained as forests. To avoid the needless waste of timber in areas destined for settlement, rules that prevented the sale of such supplies in the past were changed to give settlers an interest in the trees growing on their lots. Provided basic settlement duties were complied with, and a license for cutting timber was purchased, settlers were allowed to cut and sell their timber to pay for their land purchase. Finally, in order to better protect timber and safeguard entitlements to resource rights on private land, two separate acts were assented to in May 1860. The first dealt with the illegal appropriation of standing timber on private property (Act 23 Vict., c. 37), and the second focused on the protection of private and communal forests in Lower Canada, which were used to supply firewood, produce maple sugar or serve as reserves for native Americans (Act 23 Vict. c. 63).²²⁶ Notices were given to remind inhabitants that anyone caught unlawfully cutting, destroying or stealing trees or parts of trees from such lands, or having acquired, purchased or received the same was liable to punishment at the discretion of the Courts, by either a fine not to exceed one hundred dollars, imprisonment for up to six months or both. However, as we shall see in the following sections, the measures adopted by the Crown Lands Department had little or no effect on the behaviour of settlers operating under false pretences.²²⁷ By maintaining existing legislation

²²⁶ It is interesting to note that the cutting of timber on Indian Reservations or the purchase of timber from an individual Indian cut on Reservations was strictly forbidden by Law, under penalty of a fine and imprisonment. See Notice in Canada Gazette, dated 31st of October, 1861.

²²⁷ Report of the Select Committee appointed to enquire into and report on the state of the lumber trade in Canada, 12 May, 1863, in Appendix no. 8, Sessional Papers, 1863.

relative to the issue of free grants on newly opened public roads,²²⁸ scarcely enforcing its own rules regarding the fulfillment of settlement obligations, and persisting in the sale of lots unsuited for agriculture or located within existing timber berths, Vankoughnet's efforts did little to improve the management of public resources. In fact, if the staunch criticisms voiced in the inquiry on the State of the Lumber Trade and the findings of the Financial and Departmental Commission of 1863 hold any meaning (see Section 5.6 below), then the situation appears to have gotten worse in the years that followed Vankoughnet's initiatives, not better.

5.5.3 Externalities and Early Environmentalism

The push to economise public forests and ascertain the rights of private landholders did not emerge from fortuitous circumstances but from the growing realization that Canadian forests were not inexhaustible and that the depletion of such resources produced a wide range of negative externalities. From mid-century onwards, references to the rapid pace of deforestation and the consequent dissipation of environmental services begin to appear with greater regularity. Already, trees suitable for the purpose of squaring were becoming scarce and lumbermen had to travel ever further to find adequate supplies or else invest heavily to overcome the physical barriers that prevented the past exploitation of harder to reach groves. But where the problem of deforestation was most acute, was within the settled communities of the Province. Though the importance of maintaining sufficient reserves of standing timber to address local needs (i.e., fuel and raw material for construction purposes) was a basic settlement principle of the older French and English regimes, the incentives actors faced from the end of the 18th century onwards actually tended to incite the conversion of residual forests rather than promote their preservation. As discussed in Chapter IV, governments under the old representative system were prone to obfuscate the rules governing Crown lands to serve self-regarding interests, whereas after unification, the sale of land and forest rights to Crown and Clergy Reserves became part of the revenue generating apparatus of responsible government. Yet, whether land was acquired for speculative reasons or sold for legitimate purposes made little difference for in the end, the forests were felled just the same and converted to cash or agrarian purposes wherever suitable tracks existed.

²²⁸ Act 16 Vict., c. 159, s. 9 & 10.

Settlers and the various agricultural societies of the colony were thus among the first Canadians to recognise the intrinsic value of trees and of forests more broadly. Building on the experience of their neighbours south of the border, “[t]he imperious necessity of providing some means for the preservation of ... forests”²²⁹ quickly gained currency amongst those who faced rapidly diminishing resource pools along with the loss of benefits that were heretofore taken for granted. As awareness of the problems associated with deforestation broadened, so did the realization that forests provide more than mere appropriation utilities. By the early 1860s, a much more complex understanding of the role of forests began to emerge and appeals for the preservation of forest and even their “artificial” propagation irrevocably shifted towards the maintenance of forest-related ecosystem services. The notion that forests could affect local weather patterns, soil fertility, the quality and regularity of fresh water streams; provide assurances against the erosion of soils and the desiccation of crops in agricultural landscapes; and control water runoff and snow melt along catchment areas, are but some of the services that were recognized by the early 1860s.²³⁰ As one observer put it in the Farmer’s Journal of Lower Canada in 1858, “it is only by considering the properties of trees, and the part played by forests in the economy of nature, that we can see and appreciate their value.”²³¹ In addition to providing “food and sustenance to living creatures,” timber for the manufacture of “beams in our houses and masts for our vessels,” forests were regarded as having “other properties, and...other purposes,” such as “direct and beneficial effects... upon the atmosphere.”²³² The notion that forests likely played a role in the “gaseous exchanges” that affected the atmospheric moisture content or that they influenced mean temperature variations, thermal radiation, precipitation and humidity were the subjects of formal inquiry as early as the 1840s²³³. As a result of the extensive deforestation in the Eastern half of the United States, “[i]t is easy to prove,” wrote the previous observer to the Farmer’s Journal, “that the climate along our seaboard and the interior has undergone a material change during the last seventy years, and is changing year by year, through no

²²⁹ See Letter by Hector L. Langevin, in *Agricultural Journal and Transactions of the Lower Canada Agricultural Society*, Vol. 5, no. 3, p. 89, March 1852, CIHM no. 8_04880.

²³⁰ For example, see “Our Forests – Their Importance,” pp. 497-499, in *Journal and Transactions of the Board of Agriculture of Upper Canada*, Vol. 14, no. 16, Aug. 1862, CIHM no. 8_04016_196; Clavé (1862), *Études sur l’économie forestière*; and Marsh ([1864] 1965), *Man and Nature*.

²³¹ See *The Farmer’s Journal and Transactions of the Lower Canada Board of Agriculture*, Vol. 5, no. 12, pp. 290-294, Aug. 1858, CIHM no. 8_06434_60.

²³² *Ibid.*

²³³ Humboldt (1845), *Cosmos: A Sketch of the Physical Description of the Universe*.

assignable cause except the destruction of our forests." But beyond the interests of agriculturists and the need for such basic essentials as fresh water, fuel and construction materials, the ever expanding scope of the Province's timber and lumber operations were also beginning to affect the resilience of other valuable resource systems.

Nearly every major tributary of the St. Lawrence River was, by the mid 1850s, obstructed in some way or another by an artifact of the timber trade. Dams and slides were constructed to facilitate the conveyance of cut timber to processing facilities, ports and markets, and mills were increasingly being built to supply the growing demand for deals, planks, and other sawn lumber articles. Together, these obstacles created formidable barriers to the spawning grounds of the Province's prized salmon stocks, which in turn affected the prospects of establishing and maintaining a viable commercial fishery. The response of government was however swift, thanks to the estimated returns that a commercial salmon fishery would bring in terms of revenue for the Province, the Fishery Act²³⁴ was adopted in 1857. As specified under article 26, all owners or operators of saw mills, timber slides, and other such devices were hereafter summoned to facilitate the passage of salmon by "a fish-way" or any such instrument that may be considered appropriate by the Governor in Council.²³⁵ Additional ordinances were adopted from time to time, such as those enacted in December 1858 to bring an end to the discharge of milling refuse such as "*slabs or edgings or other mill rubbish... into any Salmon and Sea-Trout Rivers or streams in Lower Canada*,"²³⁶ or in 1860, as specified under section 15 of an Act respecting abuses prejudicial to Agriculture, which forbade anyone from depositing or causing to be deposited any farm related "*filth or dead animal in any river, stream or water-course*."²³⁷ Again however, no matter how progressive such measures may have appeared at the time, enforcement varied over the years and as we shall see later, other more serious pollution problems would ultimately develop.

²³⁴ 20 Vict., c. 21, 1857 (Can) / 22 Vict., c. 86, 1858 (Can).

²³⁵ The details of the first broad assessment of the state of fresh water fisheries in Lower Canada are provided in Appendix U of the "Report of the Commissioner of Crown Lands of Canada for the Year 1857." In addition to serious depredation of fisheries by various illegal means, the report demonstrates the value that was placed upon the preservation of existing fisheries for future generations (Appendix U) and of the technological advances in the construction of temperature controlled hatcheries to maximize the survival of fish eggs and fry (Appendix U(2)).

²³⁶ See Report of the Commissioner of Crown Lands for the Year 1858, under Appendix T to the Report, Appendix no. 17, J.L.A.C., 1859.

²³⁷ 1860 23 Vict., c. 26 (Can).

Hence, the perplexing questions that confronted policy makers during this early period were not altogether different from the resource dilemmas that challenge us today. As one observer summed it up, "[w]e do not, as a people, appreciate the value of our forests."²³⁸ The realization that the forests of Canada were not inexhaustible and that their exploitation and eventual depletion produced a wide range of externalities marks an important transition in the way forests were considered, how they ought to be managed and on what terms such interventions should be evaluated. Of particular significance to this period is the perceptual change in public discourse and the referents used to give meaning to the ideas and realities that were then emerging. To convey the notion that more or less large masses of trees constituted a complex whole, capable of inducing effects that were greater than the sum of its parts, the conversation began to shift from the commercial utility of trees as "timber," "logs," "lumber" and "sticks" to the more holistic conception of trees as constitutive elements of "forests." Although far from our modern conceptualisation of *systems* and the still more recent consideration of forests as *ecosystems*, the change in terminology from the strictly utilitarian standpoint of an aggregate concentration of resource units ("timber") to the less divisible but no less functional unit of a "forest" represents a fundamental change in the way actors discussed, rationalised and argued the legitimacy of their actions. If "*clearings*" were still regarded as "*necessary to permit the industrial operations of man*," such imperatives were now tempered by the realization that "*the clearance of forests is not an unmixed good*."²³⁹ In a context of growing scarcity and increasing externalities, the sequential logic of timber appropriation and forest conversion no longer appeared to be a viable model. Other non-use benefits needed to be considered. As the preservation idea gained wider appeal, the concept eventually etched its way in the discourse of politicians and lumbermen. But as we shall see later on, the motives underlying the eventual integration of preservationist (and eventually conservationist) ideals by political and economic agents were altogether different from those of the agriculturalists.

²³⁸ "Preservation of Forests," in *Journal and Transactions of the Board of Agriculture of Upper Canada*, Vol. 13, no. 3, 1861. CIHM no. 8_04016_159.

²³⁹ Address delivered by Dr. Lawson, p. 237 in *The Canadian Agriculturist and Journal of the Board of Agriculture of Upper Canada*, Vol. 9, no. 10 (Oct. 1858), p. 232-240.

5.6 Competing Rights and Differential Interests

At the onset of the 1860s, lumbermen and agriculturalists had different but not dissimilar preoccupations regarding the future of forests in Canada. With settlement at the doorstep of the forest frontier, the privileges of lumbering interests were no longer secure. As lumberers sought to contain the expansive reflex of settlers to those portions of the territory that were better suited to the purpose of agriculture, the discussion shifted from private to public interest and the need to assign land use rights according to prevailing biophysical conditions and the social costs and benefits of land use change (Perry, 1862, pp. 40-43). Pointing to the "*vast sums of money expended to establish permanent improvements*" (e.g., mills, roads, bridges, farms and other investments for the conveyance of logs) "*in the faith that they would be protected by the Government,*" operators began demanding greater assurances regarding the maintenance of timber supplies and immunity from the threat of settlement.²⁴⁰ However, government, it seems, had other priorities.

Worry over the future of the lumber trade began in April 1858, when an Order in Council was issued to the effect that licenses to cut timber would no longer be renewed as provided for by the eleventh clause of the General Timber Regulations²⁴¹ of 1851, but would in fact be retained "*to such time as the Commissioner may deem proper.*"²⁴² Lumbermen were not alone in their consternation regarding the government's decision to withhold renewal rights. In a Circular that was issued but a few weeks prior to the latter ordinance, the Department of Crown Lands informed its timber agents that it was likewise withdrawing their own authority to issue licenses to lumberers for vacant grounds, as established by the regulations.²⁴³ Since no explanation was ever given for the change of rules, the only reason that seemed to fit the general course of action pursued by government at the time, as the Crown land agent A.J. Russell understood it, was that it "*facilitate[d] the settlement of such townships by protecting and preserving the timber as an inducement for actual settlers to*

²⁴⁰ See "Petition of the undersigned, manufacturers of timber, merchants, and others interested in the timber trade of Canada," 1858, CIHM no. 61618; Petitions and Memorials in the Report on the State of the Lumber Trade in relation to Settlement, (Appendix no. 8, Sessional Papers, 1863) and particularly, the Memorial of the Lumber Manufacturers of the Ottawa to Governor-General Monck, December, 1861.

²⁴¹ "Licentiatees who have complied with all the regulations will be entitled to renewal of the license for their berths in preference to others..." See Notice, 8th August, 1851, in Canada Gazette, no. 531, p. 11216.

²⁴² See Notice, 29th April, 1858, Canada Gazette, Vol. 17, no. 18, p. 793.

²⁴³ See response to Question 169 in Minutes of Evidence to the Report of the Select Committee on the State of the Lumber Trade in Canada, Appendix 8, Sessional Papers, 1863.

purchase land."²⁴⁴ The evidence in favour of Russell's assertions was compelling. Settlement had always been considered essential to the future prosperity of the Province and featured prominently in the policy priorities of succeeding governments. But as the availability of known territories with arable soils began to diminish, the incentive to discover new tracts of land fit for agriculture proportionally increased. To amend the situation, an Improvement Fund was created under the Land Act of 1853 to facilitate the development of Colonization Roads in the more remote sections of Lower and Upper Canada.²⁴⁵ Much to the delight of government, surveyors tasked with the responsibility of laying out such roads and identifying lands fit for agriculture were finding suitable conditions with near consistency and by the end of the 1850s, hundreds of miles of Colonization Roads (a.k.a., "free-grant roads") were being built each year and hundreds of thousands of acres of land were thrown open for settlement.²⁴⁶ But as this expanding system of roads and land grants started to intrude more and more extensively in the timberlands that were then under occupation by licensed lumberers or reserved for their use through the payment of annual ground rents, lumbermen began organizing to advance their common interest and safeguard those portions of the territory that were considered unfit for the general pursuit of agriculture. Admittedly, the ease with which settlers were able to obtain land rights in the valuable pinelands of the Province, for a mere fraction of the cost of obtaining a license to cut timber, was denounced year after year, but the apparent inability of succeeding governments to deal with this chronic situation was more or less accepted since lumberers also profited from the inadequacies of the system in place.²⁴⁷ However, the situation came to head when it became clear to everyone that elected officials and their intermediaries were knowingly selling uncultivable lands under false pretences while correspondingly changing the rules governing forest resource use to fit interests and priorities that were inconsistent with the nature of the resource system, the existing rights of lumbermen, and the public interest as a whole.

²⁴⁴ *Ibid.* A.J. Russell was the Crown Timber Agent for the Ottawa district and brother to the then Assistant Commissioner, Andrew Russell.

²⁴⁵ See "Colonization Roads," in "Report of the Commissioner of Crown Lands for the Year 1856," Appendix 25, JLAC, 1857.

²⁴⁶ For example, see sections on Lower and Upper Canada Colonization Roads, in Report of the Commissioner of Crown Lands for the Years 1859, Appendix no. 12, Sessional Papers, 1860.

²⁴⁷ As reiterated in numerous instances throughout this chapter, ever since Charles Buller first documented in 1839 the practice of purchasing land for lumbering purposes at a fraction of the cost of a licensed berth, lumbermen were known to take advantage of such loopholes.

Political interference in the administration of public affairs had reached a critical threshold at the onset of the 1860s. Charges of malversation and the misappropriation of funds were not limited to the Crown Lands Department but were in fact being preferred against all of the Public Departments of the Province. To investigate the matter more fully, a public inquiry was convened in the fall of 1862 and what it uncovered, regarding the interest-driven administrative workings of the Crown Lands Department, tended to give reason to the growing angsts of lumbermen.²⁴⁸ In its review of the said Department, "*the evidence obtained by the [Finance and Departmental] Commission abundantly establishe[d] the necessity of amendment in every part of the system.*" Not only did the Department lack a "*well-ordered distribution of labour and responsibility,*" but the absence of anything resembling a "*systematic inspection seem[ed] to afford a premium to negligence and dishonesty.*" The frauds committed for the purposes of inducing settlement on lands unsuited to agriculture were particularly revealing of the power vested in the political Head of the Department and the Executive Council as a whole: "*How far the political influences which usually enter into the appointment of Surveyors are chargeable with the errors and imperfections which exist in the surveys, is a question on which there is room for an unfavourable opinion.*"²⁴⁹

Contrary to the principles of responsibility by which elected officials were enjoined to measure their conduct, the succeeding Commissioners of the Crown Lands took on ever increasing liberties in the exercise of their duties to the point of disregarding the most basic precepts of accountability. In recent years, it was pointed out, the Department had taken to the habit of appointing surveyors on "*the recommendation of members of Parliament, without consulting the officers who are supposed to be responsible for the management of the surveys in their respective sections.*"²⁵⁰ Since favourable survey reports were needed to justify public investments in the development of colonization roads and any surveyor worth his title would scarcely risk his reputation or the strife of lumbermen by assigning value to lands that were otherwise unfit for agriculture, other more responsive candidates were tasked with the provision of supportive land assessments. Contrary to the advice of the Department's most

²⁴⁸ First report of the Financial and Departmental Commission, Québec : J. Blackburn, 1863. CIHM no. 9_00964.

²⁴⁹ *Ibid.*, p. 19.

²⁵⁰ *Ibid.*, p. 20. Such "political influence" in the attribution of patronage was also a problem that existed with the appointment of cullers and other commissioned employees of the Department. See the Fourth finding of the Report of the Select Committee in relation to the Supervisor of Cullers' Office (22 April, 1863), in Appendix no. 4, Sessional Papers, 1865.

senior officers, Commissioners regularly sanctioned and approved the discredited reports of politically appointed surveyors, along with the substantially higher wages and expenses by which they were compensated.²⁵¹ But perhaps even more alarming, was the recognition that the Crown Lands Commissioner suffered from no real limits in the exercise of the powers vested in him. For instance, unfavourable land claim decisions that were passed in accordance to the law but under the guise of previous and oft times opposing political administrations were routinely “re-opened” and “reversed when the Commissioner [chose] to exercise the great discretionary power vested in him under the system ... in force.” In fact, Commissioners often believed it “advisable [for the good of the public] to act at variance with the strict letter of statutory provisions.” Or to put it more bluntly, it is “the will of the Commissioner for the time being [that] forms the system.”²⁵² The very fact that government could pursue settlement strategies that were so often considered suboptimal by farmers, lumberers and the Department’s most senior staff suggests that the ties between lumbering interests and government had yet to congeal into any tangible nexus, as some scholars have posited (e.g., see Lower, 1938; Ouellet, 1980; Howlett and Rayner, 2001). And since timber licenses produced a higher and more sustainable source of revenue than what could reasonably be achieved through land sales, government actions were clearly not consistent with the expressed desire or need to generate revenues in support of the public’s interest.

With respect to the management of the Woods and Forest division and government efforts to limit abuses related to the illegal appropriation of forest resources, the issues of concern had less to do with political interference than political apathy. In none of the agencies tasked with the monitoring and enforcement of Crown timber regulations was there a complete and effectual check of the quantity of timber cut, of the reliability of the records kept, nor of the actual size of the limits that lumberers professed to occupy. Sworn statements by lumberers with no effectual means of verifying their accuracy provided the only means of securing the public’s interests. However, since government (i.e., the principal) exercised no

²⁵¹ *Ibid.*, p. 21. In one particular instance, no less than three commissioners, including the future Prime Minister of Canada John A. Macdonald (who was acting as interim Head), knowingly bent existing rules regarding the appropriation of public funds to satisfy the interests of such a politically appointed surveyor who was shown to be both incompetent and overpaid.

²⁵² *Ibid.*, p. 21. To this end, the Report goes on to state that “Decisions of the Department have been repeatedly reversed in Council, and the Department itself. This want of finality is a fruitful source of intrigue, of bargaining, of injustice, and corruption. It affords scope to the exercise of individual and political influence to which no Commissioner should be exposed, and further in numberless cases the public interests have suffered.”

control over the dealings of its agents, the system was utterly dependent upon the honesty of crown officers and lumberers, thus generating strong incentives to free ride or shirk assigned duties and responsibilities.²⁵³ By the end of 1861, arrears occasioned by the non-payment of timber and slide dues amounted to more than \$250,000. Some of the missing dues were so old that the Department simply stopped reporting them, while others were made the subjects of lengthy disputes. Effectively, “[c]utting timber in trespass,” was regarded as “*a common offence which had grown up into a system, the only penalty exacted being the payment, if detected, of a certain percentage upon the rate established for timber cut under license, though by law it was subject to seizure and sale.*”²⁵⁴ And despite the Department’s repeated threat that it would no longer tolerate such depredation, “*parties continued to cut timber without authority and compromises were made with them in the [same] manner [as]... previously obtained.*”²⁵⁵ Moreover, since compromises were arranged by local Crown timber agents, “*a good many parties appealed to the Department*” whenever such negotiations failed to secure the interests of lumbermen, thus aggravating the Department’s administrative burden. Finally, the idea of fairness and equity in the application of rules, which the Department fully embraced as an overarching principle of public policy, was no more respected than the rules it professed to enforce. The practice of exempting operators from their obligation to pay increasing ground rents on unused berths was consistently exercised by the Commissioners ever since the rule was first adopted in 1852,²⁵⁶ while in other instances, government interference could just as well be used to secure special reserves for the benefit of prominent lumbermen.²⁵⁷

Despite the recognition that “*the present system tends to great waste ... and the revenue and the material interests of the Province seriously suffer*”²⁵⁸ from the way in which the timber and settlement concerns were administered in the Crown Lands Department,

²⁵³ *Ibid*, p.30. The want of any accuracy in the quantity of timber cut and the amount of dues owed to the were further hampered by “*The expensive machinery connected with the office of Supervisor of Cullers at Québec. [S]o far as concerns the protection of the Crown Timber revenues*” the Commissioners believed that the system in place was a “*delusion in many respects*” since the government had no control over cullers employed by third parties (pp. 32-33). But as referenced in the “*Report of the Select Committee in relation to the Supervisor of Cullers’ Office*” (see Appendix no. 4, Sessional Papers, 1865), the whole system of culling lumber was in fact “*defective and unsatisfactory*” and in need of substantive change.

²⁵⁴ *Ibid*, p. 31.

²⁵⁵ *Ibid*, p. 109, Question 708.

²⁵⁶ See “*First Report of the Finance and Departmental Commission,*” Question 690, pp. 102-103.

²⁵⁷ *Ibid*, p. 32.

²⁵⁸ *Ibid*, p. 33.

nothing ever came of the findings contained in the Finance and Departmental Commission. For lumbermen however, this was not the end of their remonstrations. In the spring of 1863, a Select Committee of the Legislative Assembly was tasked with inquiring into the State of the Lumber Trade of Canada, in relation to the settlement of the country, and the actions of the government in dealing with these interests.²⁵⁹ What the Select Committee found not only confirmed the results of the Finance and Departmental Commission, it also laid bare the strong dissension that existed within the Department relative to the Commissioner's ability to pursue prerogatives that were either contrary to public interest or the accumulated knowledge and experience of the most senior officers of the Department. Of particular significance to the officials who were called upon to testify was the fact that changes in the rules governing forest resource use were often arbitrary and seldom were they published in the Official Gazette, as required by the Statutes in the way of an Order in Council.²⁶⁰ Specifically, the Committee concluded that the *"law, under which the lumber trade of the Province is governed, has for several years back been continuously and systematically violated in the Crown Land Department, and an uncertain and ever-varying action substituted for a fixed and definite provisions of law under the Statute."* Applications to cut timber could be *"accepted or rejected at the discretion of the Department, but on no published rule available to all."*²⁶¹ Asked whether such changes were demanded by, or satisfactory to the trade, the Crown Timber Agent for the Ottawa District, A.J. Russell, responded in unequivocal terms: *"None of them were in any way or degree demanded or desired by the trade, and they gave very great dissatisfaction."*²⁶² Departing from a *"system of fixed and uniformly administered regulations ... to one which is not so, without better securing the interest of the Crown"* Russell added, has *"had the further detrimental effect of producing an impression on the minds of the lumberers that there is a constant risk of dangerous incapacity on the part of the department to deal justly or successfully with the interest of the trade and the public."*²⁶³ As Perry (1862, pp. 43-44) observed, inconsistency in the application rule inevitably led to insecurity amongst lumberers, and uncertainty over the future led to waste in the use and management of available timber:

²⁵⁹ See "Report of the Select Committee on the State of the Lumber Trade of Canada, Appendix no. 8, Sessional Papers, 1863.

²⁶⁰ *Ibid.*, see response to Question 174.

²⁶¹ *Ibid.*, see response to Questions 173 and 179.

²⁶² *Ibid.*, see response to Question 175.

²⁶³ *Ibid.*, see response to Question 178.

"The Lumber Merchant [needs to have] an interest in his Limit, beyond that of dependence on the fiat of an Order in Council [...]. As the manufacturer has no direct interest in preserving this timber, and as he is frequently in dread of having his limits divided and put up for sale, in the anxiety to take the greatest amount of value out of them, he destroys fully as much growing timber as he takes to Québec."

With respect to the impolicy of affording inducements to settlers who accepted less than perfect soil conditions, the Select Committee concluded *"that settlement has been unreasonably pushed in some localities quite unfit to become the permanent residence of an agriculture population."* At the very least, the Committee continued, government should ascertain whether or not lands are fit for agriculture before opening any new area or road to settlers. Echoing the views expressed during the Finance and Departmental Commission, Allan Gilmour (a prominent lumber merchant of the Ottawa Valley) explained that surveyors and land agents were in the habit of providing incorrect and unreliable reports of land conditions because it supported the government's position relative to settlement and because surveyors and road constructors depended on reports saying so: *"it was the interest of those employed about this business to report in such a way that their services should be continued."*²⁶⁴ Moreover, Gilmour added, since towns and cities were themselves becoming increasingly *"dependent upon the lumber trade,"* the *"consequence of settlers being unduly encouraged to enter the pine lands"* meant that increasingly large proportions of the territory were needlessly being exposed to the risk of fire (thus threatening the economic security of those who depended on the maintenance of such stocks) due to the use of such indiscriminate methods as slash and burn to clear undesired brush or timber. By encouraging settlers to use the proceeds from timber cut on private lands as a means of perfecting their ownership title, A.J. Russell stressed that the government's land granting policy had the effect of affording a bounty or inducement to the settler to pick the very best timbered lands (i.e., Pine stands) for purely exploitive reasons, without any consideration of the actual qualities of the soil. What temporary advantage the legitimate settler gained ultimately turned to dust, with both his profits and toils lost with nothing to show for except barren landscapes and increased levels of poverty. But even when settlement at or near the footsteps of lumbering operations were condoned by the industry for the short term benefits it provided in terms of accessible and

²⁶⁴ See copy of the letter dated 9th February 1863 in "Report of the Select Committee on the State of the Lumber Trade of Canada, Appendix no. 8, Sessional Papers, 1863.

less costly produce to support their operations, the fundamental problems of poor and unsuitable soils were left largely unresolved. Since much of the forest lay on barren grounds that were unfit for agriculture, "*a great deal of very unwise settlement*" occurred and once an area was cutover, farmers were left stranded in the middle of a marooned landscape with no possible outlets to recoup their investments (Lower, 1938, p. 30).

Though senior officers had warned the Department of the ultimate consequences of its land policies, the system was pursued without the slightest modification until Confederation in 1867, leading to a trail of abuses that was made worse by the absence of any effective monitoring and enforcement of settlement activities.²⁶⁵ For the timber trade as a whole, uncertainty over whether one's investments would sooner or later be taken up by a settlement claim or consumed by the many runaway fires that were initiated for such purposes meant that lumberers consistently faced strong incentives to overharvest.²⁶⁶ As John Langton observed, the mismanagement of forestlands was attributable to the perverse incentives settlers and lumberers faced. "*The cheapness of the land, and ignorance of what can be profitably worked, together with the facility of access by the new roads opened by Government and by the lumberers*" inevitably attracted newcomers seeking their fortune. But in the process, "*they destroy much*" and incite "*the lumberer who has a license over the land*"... "*to scramble for anything he can get, before it passes out of his hands.*" Timber regulations were not much better. "*At present,*" Langton lamented,

*"a license is issued renewable from year to year at a moderate rent at first, but the rent rising rapidly if the license is not occupied, and the license lapses immediately upon the land being sold. I cannot imagine a system more completely calculated to denude the country of timber. Every license holder has an immediate interest in making everything he can off his limits, as rapidly as possible, utterly regardless of what may become of it ten years hence." "We complain of [lumbermen] as improvident [but it is] our legislation that has made the bulk of lumberers into a band of marauders, whom we have perversely excluded from all hope in the future."*²⁶⁷

²⁶⁵ Ibid, see response to Question 186. In effect, the incoherence of the Department's land granting rules were never amended, thus giving legal protection to any speculator or "pretended settler" to enter into any well-timbered lot or allocated limit, regardless of its suitability for cultivation, and to take possession of all marketable timber for a profit over and above the payment of any instalment for the land itself (and if paid at all).

²⁶⁶ Ibid, see responses to questions 13, 30 and 33. See also.

²⁶⁷ Langton, John 1862. *On the Age of Timber Trees, and the prospects of a continuous supply of Timber in Canada*, in Transactions of The Literary and Historical Society of Québec, Vol. 5.

With the excess production arising from newly settled land, the combined surplus of timber and lumber supplies helped to maintain the notoriously low price of Canadian wood products in the European market, which in turn “*merely denud[ed] the country of [its] best timber, without benefiting any one.*”²⁶⁸ But the cause of overproduction was not entirely the fault of selfless speculators hoping to cash-in on variable market conditions, the problem as Perry (1862, pp. 44-45) noted, was as much due to the absence of adequate regulatory measures to maintain production levels within a more realistic framework:

“it is as much the interest of the people of Canada to conserve this trade, as it would be of a private individual to preserve a single plantation at his disposal; and it is perfectly ridiculous to allow 30,000,000 cubic feet of timber to be produced in one season, when the demand would be supplied by 15,000,000 cubic feet. The producers may injure each other by competition, but the Province, the real owner of the property, is irretrievably injured without a chance of compensation.”

While lumbermen and farmers both agreed that the activities of the legitimate settler on well suited land could not be more complementary to the progress of the timber trade, they attributed the strife over incompatible land use claims to “*the indefinite, complicated and continued changes made in the Crown Lands Department.*” Accordingly, the situation could only be remedied by clearly delineating “*the advantages... of the lumber trade and actual settlement*” and by establishing “*such regulations... as would clearly and permanently define the rights of both.*”²⁶⁹ The urgency of coming to terms with the threat of forest conversion from the improper allocation of forest resources to settlers lay in the granting of longer term tenures²⁷⁰ and a certain degree of permanency to existing forest land, as suggested by the

²⁶⁸ Report of the Supervisor of Cullers on the Timber Trade, Appendix no.11, Sessional Papers, 1862.

²⁶⁹ Report of the Select Committee on the State of the Timber Trade in Canada, 1863, see response to Question 121. Complicating matters further still was the complex reliance on some fifteen different forms that needed to be completed in order to obtain a license to a lot for settlement purposes – giving rise to an administrative burden that was considered disproportionate to the benefits (see responses to Questions 196-197).

²⁷⁰ With regards to efforts to preserve the valuable forest assets of the Province, A.J. Russell was of the opinion that “*the substitution of a longer lease for the annual one would be productive of great economy. The present system tends to great waste.*” See First Report of the Finance and Departmental Commission, Question 572, p. 83.

principle of forest reserves.²⁷¹ This, at any rate, appears to have been one of the conclusions reached by the Select Committee:

"it would be advisable for the protection of the public forests of the Province, that a character of greater stability be given to the tenure of timber limits, providing, of course, against it being made any barrier to the actual settler on lands adapted for cultivation."

5.7 Return to Business as Usual

As is often the case with unfavourable assessments, results of the inquiries of 1862 and 1863 were neither mentioned nor alluded to until the presiding government was again changed in the spring of 1864. While private bills were introduced (and some even adopted) to correct the critical shortage of forests within the older settlements of Lower Canada,²⁷² the government's willingness to provide greater security to lumberers by differentiating land use rights according to the arable qualities of the soils was maintained as a rhetorical commitment only. *"Though much of this country has been denuded of its valuable timber,"* conceded Alexandre Campbell, the Commissioner of Crown Lands in his annual report for the year 1865, a large part of the pine country remained intact and if *"set apart"* and properly husbanded by way of *"a system of rotation such as is now adopted in Norway and Sweden, and in many of the German States, ... pine growing might be continued and preserved for ages to come."*²⁷³ But in these final days of the united Province of Canada, such ambitious considerations were never acted upon and the results of previous investigations were conveniently shelved with no further ado.

²⁷¹ One of the earliest legislative efforts to assign land use rights according to the arable qualities of the soil was submitted to Parliament in 1858, under the title of a *"Bill an Act to make better provision for the Disposal and Management of Public Lands."* The Bill, which aimed to improve the management of public lands, included a section on Woods and Forests that called for the creation of timber reserves to *"preserve and ensure a permanent supply of fuel and timber necessary for the various requirements and interests of the Country"* – such tracts to be known and designated as the *"Forests of the Public Domain."* The Bill was never sanctioned by Parliament. See p. 14, CIHM no. 9_07615.

²⁷² See for example, *"Bill an Act for the Preservation of Standing Timber in Lower Canada"* (1863) Québec: Hunter, Rose & Lemieux, CIHM no. 9_02692; *"Bill an act to provide for the preservation [of] standing timber,"* 1863, Québec: Hunter, Rose & Lemieux, CIHM no. 9_03033.; *"An act to Provide for the Preservation of Standing Timber"* 1865, 29 Vict., cap. 53, which provided for the creation of forest reserves in all new townships in Lower Canada. Unfortunately, the Act was approved without the progressive self-governing structure that was advanced in the original Bill of the same name, preferring instead to place the control and management of such territories in the hands of the Commissioner. The original Bill was mandatory for all municipalities in Lower Canada and called for the local governance of such reserves (at the municipal level), a supra-majority voting scheme that gave all attending residents an equal share of the voting franchise, along with a clearly set out process for adjudicating disagreements over allocative decisions. The voluntary nature of the Act that was voted into law was never given any serious consideration.

²⁷³ See *"Report of the Commissioner of Crown Lands for the Year 1865,"* p. xxi, Appendix no. 3, Sessional Papers, 1866.

The final effort to better regulate the extraction of Crown timber came on June 13, 1866 in the form of yet another ordinance that more or less captured the numerous amendments of the last fifteen years within a single regulatory instrument.²⁷⁴ It was thus confirmed that annual licenses to cut timber would hereafter be offered through public auction and made renewable pending the fulfillment of established conditions. The upset price for the bonus to be paid by the highest bidder at the time of sale was set at four dollars per square mile and annual ground rents were left unchanged at fifty cents per square mile (500 feet of square timber or 20 saw logs to the mile being considered as due occupation). The maximum size of a timber berth was maintained (i.e., 50 sq. miles on surveyed land and half as much in surveyed areas) and the general rates applicable to timber cut under license were left nearly identical.²⁷⁵ Transfers were admitted as long as these were "*not found objectionable by the Crown Lands Department or Agent.*" The rights of Crown Timber Agents to grant or renew licenses were reaffirmed and registers of their proceedings along with the plans of licensed areas were to be made "*open for public inspection.*" Arrangements for adjudication or arbitration in case of disputes followed previously established procedures, as were the obligation to submit sworn statements of the quantities of timber manufactured from public lands. In short, nothing of consequence was changed nor added beyond what already existed.

By the end of 1866, the total annual revenues accrued by the Woods and Forests division amounted to \$428,958, up from \$376,574 dollars in 1860, whereas the area under license increased from 27,413 square miles in 1860 to 34,940 square miles in 1866.²⁷⁶ But given the government's failure to correct the legal loopholes and weak enforcement measures that allowed operators to extract value from newly settled lands at a fraction of the cost of a timber license, as much wood was being taken from private lands in the 1860s as there was in 1840s. At least, this is the picture that emerges from the multiple (but not always conforming) data sets showing the amount of timber and lumber taken from Lower and Upper Canada in 1866 (see Table 5.2 below). According to the estimates provided by the Supervisor of

²⁷⁴ See "Crown Timber Regulations," in *Canada Gazette*, 1866, vol. 25, no. 26, p. 2150-52.

²⁷⁵ Oak and Walnut = 1.5 d./ft³; Elm, Ash and Tamarac = 1d./ft³; Red and White Pine, Birch, Basswood, Cedar, Spruce, &c = 0.5d./ft³; Pine saw logs of 13 ½ feet long & 20 inches at least diameter = 6d. or ten cents each; Spruce saw logs 13 ½ feet = 2.5d.; Cord wood (hard) per cord = 8d., Soft cord wood = 4d.. Where measure could not be obtained, White pine was estimated to contain 70 ft³; Red pine 38 ft³; Other kinds at 34 ft³.

²⁷⁶ Report of the Commissioner of Crown Lands for the Year 1866, Appendix no. 6, Sessional Papers, 1867.

Cullers' Office, the combined production in square timber (pine and timber) for the year 1866, 38,970,938 ft³, was nearly three times greater than the amount upon which duties were actually charged (12,984,494 ft³). Although much of the available data is relatively difficult to decipher in terms of actual values (especially with regards to the amount of manufactured products cullers reportedly measured and counted), official export records make it clear that more than twice as much wood was being exported from Canada than what was liable for the payment of Crown dues. Even if one assumes that all of the 1,983,431 saw logs reported by the Woods and Forest Branch for 1866 were converted into boards, planks and deals, the official quantity of saw logs appropriated from public lands would still be insufficient to produce the 622,727,000 board feet (a sum equal to more than 58 million ft³) that was exported from the Province in 1866 (see the combined exports for boards, planks and deals, third row, Table 5.2). Moreover, in comparison to declared exports, every other figure provided by the Woods and Forest division was dwarfed by the impressive quantities of wood exported. Whether its railroad ties, shingles, staves, or firewood, roughly a hundred times more wood was being exported from the Province than what was liable for Crown dues. Given that thousands more feet of staves, masts, spars, sleepers, oars, lathwood, and various other articles were annually exported from the Province or consumed by local shipbuilding industry, it appears quite clear that the production emanating from private lands was either equal or greater than that which was taken from the public domain.²⁷⁷ Since older settlements were reportedly lumbered out by the end of the 1850s, it would be fair to assume that most of this "private production" was in fact occurring within the newly "settled" lands.

²⁷⁷ The exact quantity of wood that was being taken out of the forests of the Province prior to Confederation is near impossible to confirm. Other than the fact that the records of cullers were known to be inexact, large timber and lumber manufacturers employed their measurers and since it was impossible to tell whether the figures they provided were in fact true, many were tempted to bias their reports in favour of their employer. Exports through the Great Lakes to the United States were not consistently recorded (as was the case for the year 1866) and no distinct correlation seemed to exist between the amount of wood that was counted versus that which was culled.

Table 5.2 Production and Export Data for 1854 and 1866.

| Source of Data | Sq. Pine (ft ³) | Sq. Hardwoods (ft ³) | Saw logs (ps) | Boards / Planks (bf) | Deals (bf) | Firewood (cords) | Railroad Ties (ps) | Shingles (ps) | Standard Staves (ps) | Other Staves (ps) |
|--|--------------------------------|-------------------------------------|------------------|-------------------------|-------------|---------------------|-----------------------|------------------|-------------------------|----------------------|
| Woods & Forests ¹ | 12,681,152 | 303,342 | 1,983,431 | | | 2,080 | 7,387 | 105,000 | 22,153 | 52,950 |
| Supervisor of Cullers' office ² | 32,054,925 | 6,916,013 | 2,490 | ND | ND | ND | ND | | 1,332,000 | 1,557,000 |
| Trade & Navigation Export Tables (1866) ³ | 21,463,520 | 4,662,400 | 128,236 | 465,812,000 | 156,915,000 | 240,193 | 146,770 | 77,848,000 | 2,417,000 | 8,441,000 |
| Trade & Navigation Export Tables (1855) ⁴ | 13,814,840 | 2,405,320 | 54,094 | 221,109,000 | 76,169,500 | 29,098 | 84,056 | 12,023,000 | 1,320,000 | 2,737,000 |

Sources:

¹ General Statement of Timber for the Year 1866, Appendix No. 20(b), Sessional Papers (No.6), 1867² Abstract of the Number of Pieces and Cubic Feet of ... Timber Measured and Culled for the Year 1866, Appendices No. 20(g), (h),(i), Sessional Papers (No. 6), 1867³ General Statement of Exports for the Year ending June 1866, Trade and Navigation Tables, Sessional Papers (No. 1) 1867-68⁴ General Statement of Exports for the Year ending June 1855, Trade and Navigation Tables, JLAC (Appendix no. 29), 1856

Export data from 1855 and 1866 show that within the span of a decade, the quantity of wood exported from the Province roughly doubled and sawn lumber irrevocably superseded square timber as Canada's chief export. Markets were also more clearly delineated, both in terms of geography and production. Nearly all of the Province's production in terms of saw logs, boards, planks, firewood, railroad ties and shingles was destined for the United States, whereas squared timber, deals, staves, masts, bowsprits, and other assorted articles were essentially prepared for markets in Great Britain and Europe. While Reciprocity did create new opportunities and avenues for Canadian wood products, its influence over the productive output of the Province was evidently greater in Upper as opposed to Lower Canada. With increasing demand for sawn lumber, the Reciprocity Treaty ultimately opened the door to even more extensive levels of appropriation, leading to what Lower called the birth of the "migratory industry" that moved its operations and processing facilities along the retreating plane of the forest frontier, "leaving derelict, or semi-derelict, the cut-over regions" (Lower, 1938, p. 139).

5.8 Forests Under Unification – Discussion & Conclusion

As the productive output of the forest sector steadily increased, so did the overall complexity of the system. Production became more diversified, the number of saw mills operating in the Province nearly doubled, and the share of manufactured goods destined for markets in the United States now rivalled the quantity of wood sent to Europe. Consequently,

timbering and lumbering operations were extended over an even greater proportion of the territory, which in turn limited the capacity of the Crown Lands Department to maintain effective oversight. Following Hodgetts (1955, ch. 10), evidence drawn from available records suggests that in the final days of the Union Government, the Department of Crown Lands was beset by at least three key problems: (1) the problem of administrative decentralization that was occasioned by the incessantly sprawling business of the Department, and the need to ensure local / regional compliance without compromising the centralized span of control; (2) the principal-agent problem that stemmed from the vast resource wealth under the control of the Department and its limited capacity to oversee the dealings of its agents, which in turn created strong incentives for free riding and the shirking of fiduciary responsibilities; and finally, (3) the problem of heterogeneity that was fostered by the incompatible demands that were placed upon the Crown lands (i.e., agrarian versus forest-dependent land uses), the lack of horizontal linkages across the separate branches of the Department, and the changing or conflicting policy priorities of succeeding ministerial heads. Put differently, the Department was in fact struggling with problems of fit, scale, and interplay (Young, 2002). Such difficulties however, were not unique to the Crown Lands Department. As the Financial and Departmental Commission of 1862 to 1864 made clear, the ever-expanding scope of government action evidently created opportunities for mismanagement to occur throughout the system. By the end of the 1850s, the diverging interests of Upper and Lower Canada were made manifest²⁷⁸ and instead of calls for improvement in the administration of government came demands for change in the underlying constitution of the Union itself. In short, rather than showing signs of progress in the management of public affairs, the Province appeared increasingly dysfunctional, thus hampering public trust and paralyzing legislative action. The provisional constitution of 1840 seemed to have outrun its course and as the need for institutional reform gained widespread appeal, political attention inexorably reverted back to Lord Durham's untried proposition of establishing a federated union of British North America.²⁷⁹

²⁷⁸ On the issue of the growing dissatisfaction with the union of the two Canadas, see "Question of federation of the British provinces in America," 1858. London: Foreign Office, CIHM no. 22673.

²⁷⁹ See Durham, Report on the Affairs of British North America, Volume II, pp. 304-305.

Nevertheless, between 1841 and 1866, Canada's burgeoning forest sector showed remarkable resilience and continuous growth despite the repeal of preferential duties and the rising costs of timber on public lands (both in terms of government imposts and the increasing level of effort required to access, cut, and process resource units). The timber licensing system was perfected and made more profitable for government through legislative and executive rulings. Reciprocity created new opportunities for the exploitation of smaller and more abundant resource stocks for the manufacture of sawn lumber, and although the yearly production of squared timber remained relatively stable at 20 million ft³ or so until the end of the century (Québec and Ontario combined), sawn lumber became Canada's chief export during the 1860s and it remained as such until the advent of the pulp and paper industries at the turn of the twentieth century. While the Reciprocity Treaty ended when negotiations towards Confederation were well underway, the struggle to secure access to Canada's forest wealth – fought with the familiar weaponry of duties and tariffs (Lower, 1938, p. 148) – proceeded unabated well into the 20th century. Moreover, despite initial fears, the end of Reciprocity and the addition of a 20% duty on Canadian imports did not spur widespread recessionary conditions. In fact, US demand for Canadian lumber and wood products remained strong well into the 20th century despite periodic downturns, changes in applicable tariffs, or variation in the overall value of wood and timber products (*Ibid*, pp. 148-159).

On the eve of Confederation, the central tenets of what was to become Québec's forest governance structure were essentially established and revolved around four fundamental propositions that have since withstood the test of time. They included (1) a concessionary approach to the allocation of resource rights; (2) centralized decision-making authority; (3) the pursuit of direct (e.g., revenue) and indirect (e.g., employment and positive trade balance) economic returns, and (4) the right to define collective and operational choice rules and affect the distribution of benefits.²⁸⁰ While the revenue motive was never lost on those who commanded the progress of forest resource use in Québec, government interventions in the management of Crown lands and resources demonstrated a far broader range of interest than a mere penchant for revenue enhancement, as Howlett and Rayner (1995, 2001) emphasize.

²⁸⁰ Or as Crawford and Ostrom (1995) put it, the rules that determine the participants, positions, actions, outcomes, information, control and costs/benefits of both collective and operational choice situations.

The case of forest governance during the era of unified legislatures points to a more complex relationship between political motives, the management of the Crown Lands Department and the use of forest resources. To be sure, succeeding governments were indeed motivated to increase their share resource-based revenues but the pursuit of such an imperative was moderated other considerations and priorities. Chief among these was the desire to promote and enhance settlement, and the pursuit of this goal resulted in land management strategies that supported neither the interests of lumberers, settlers, nor those of the broader public. For in pursuing this middle range strategy, governments and their agents (willingly or not) turned a blind eye to the constant threat of encroachment by settlers (whether legitimate or not). They nourished feelings of insecurity amongst lumberers, which in turn created strong incentives to liquidate timber limits as quickly as possible, leading to overproduction and below market valuation of Canadian timber. They caused the needless waste of well-timbered territories by encouraging settlers to take up land that was otherwise unfit for agricultural purposes. They reduced the revenue-generating potential of Crown Lands by creating an incentive to extract an equal if not greater amount of timber through the simple expedient of private land hold, which was either free from the obligations of Crown dues or the subject of weak enforcement by corruptible land agents. And finally, inconsistency in the actions of government helped to reinforce public apathy and distrust in the administration of public affairs, thus paving the way for corruption and the disregard of regulatory provisions. In sum, even though the need for revenue continued to be of prime necessity after unification, the pursuit of colonization strategies at the very edge of the forest frontier ultimately resulted in confrontations that promoted the waste of valuable resources, diminished overall returns for government, and left both lumbermen and settlers worse off than what any foreseeable alternative might have reasonably produce.

Forest resource institutions under the united Province of Canada offered no shortage of opportunities for operators to circumvent existing rules and reduce their private costs. Resources were underpriced, enforcement was either negligible or negotiable, and the ease with which lumberers could petition the Crown Lands Department or the Governor in council offered strong incentives to engage in beneficial rent seeking activities. While recognizing that forests are inherently difficult to govern due to the high costs of exclusion costs and

substractable nature, the evidence discussed in this chapter suggests that the government's quasi monopoly over the instrumentalities of collective action invariably led to abuse and the pursuit of politically motivated priorities or policies that resulted in sub-optimal outcomes. By granting government sole custody over the right to determine the "*conditions, regulations and restrictions*" applicable to the use of Crown resources (Act 12 Vict., cap. 30), the line between *intra* and *ultra vires* choice was blurred, and the evaluative frontier for ministerial responsibility shifted from a purely positive mode of inquiry to the less tangible world of normative considerations. For under the cloak of parliamentary confidence, government gained the legitimacy it lacked in the previous representational system, which in turn provided the authority to define the private choices of the executive as the public choices of government. As such, failure to act in the public's interests became harder to decipher, and because the power to amend resource institutions "*as required*" rested with Cabinet, government could potentially exceed its authority or abuse the privilege of office (from a purely normative standpoint) without necessarily violating any legal precedents. Hence, inefficient or counterproductive policies, such as the building of colonization roads in areas unsuited for agricultural purposes or held under license to cut timber, were conspicuously pursued despite contradictory advice from senior civil servants, the ire of lumberers, or the acknowledged waste that such strategies tended to produce.

The presumption that an electoral requirement would be sufficient to maintain a check on inappropriate behaviour did not, in the end, prevent members of the executive from abusing the privilege of office. The governments that succeeded each other after unification were no more encumbered by the constitutional constraint of responsibility than were the appointed officers of the Crown in the previous representation system. If the administration of public affairs changed hands as often as it did during the period of the union, it was merely because the principle of party politics had not yet fermented and votes on any particular issue were more or less equally divided along the Ottawa boundary that separated Lower from Upper Canada. The impossible task of securing stable majorities under such conditions was a key factor in the dissolution of the joint legislature and the push towards a federative arrangement.

Imperfect as it was, the responsibility principle nevertheless became the core constitutional principle for the establishment of fair and accountable institutions following Confederation. While the sufficiency of responsibility as a safeguard against the objectionable conduct and policies of future governments was questioned by a few discordant voices,²⁸¹ the principle was staunchly defended by the likes of John A. MacDonald, Alexander T. Galt, George Brown and George-Étienne Cartier during the constitutional debates that were held in Halifax and Québec City in 1864 and 1865 respectively.²⁸² With the American Civil War fresh in the minds of Canadian political leaders, which many attributed to the absolute powers of a president presiding over an irresponsible executive of his own choosing, the defenders of the draft constitutional framework for a federative union of British colonial dependencies. As one delegate of the 1865 convention in Québec City summed it up:

*"Under [the institutions given by] the British Constitution we have kept sacred the great principle of responsible government which we now enjoy, and under which ministers of the Crown hold their seats in and are responsible to the Legislature. Well, we want no change of the principle, for... it is the greatest safeguard to liberty... in the world."*²⁸³

The path of institutional change under the unified legislature of Upper and Lower Canada was primarily conditioned by the want of revenue to defray the costs of government, but efforts to achieve such an end were strongly moderated by the no less important priority of promoting colonization and the settlement of its vast territorial domain. While forest governance institutions were adopted, modified, or changed to increase or maintain the government's share of potential returns, reduce the risk of monopoly and render unoccupied sections of the Province productive of revenue, policy interventions became much more conciliatory after the collapse of 1846 and the severe economic depression that followed. Significant changes were no longer adopted without prior consultations. After 1849, inquiries were periodically conducted to assess the state of the lumber trade or the management of Crown lands more broadly. Prominent lumbermen and senior civil servants were regularly

²⁸¹ For example, see "Letter addressed to the Earl of Carnarvon by J. Howe, W. Annand, and H. McDonald: stating their objections to the proposed scheme of Union of the British North American provinces," London: G.E. Eyre & W. Spottiswoode, 1867, CIHM no. 04679; "Speech delivered in the Legislative Assembly, by C. Dunkin, ...during the debate on the subject of the Confederation of the British North American provinces," Québec, 1865, CIHM no. 23230.

²⁸² See "Parliamentary debates on the subject of the Confederation of the British North America," and in particular, the address by Attorney General MacDonald (February 6th, 1865), pp. 32-35.

²⁸³ See Address by Burwell, February 24th, 1865, in the "Parliamentary debates on the subject of the Confederation of the British North America," p. 447.

invited to take part in such proceedings, share their experiences, and make recommendations as required. However, the elements that percolated through such proceedings and the overall receptiveness of governments to the tendered information varied considerably. Alternative solutions to costly and counter productive arrangements (e.g., minimum production quotas) were often proposed and some (e.g., ground rents) were eventually adopted, but seldom were such inquiries and changes carried forth by the same executive administration. Finally, despite repeated references to such problems as encroachment by would-be settlers, the underpricing of standing timber, overproduction, the lack of enforcement, and the wasteful exploitation of timber on land acquired for settlement purposes (to name but a few), nearly every government that took hold of office between 1840 and 1866 faced a similar slew of defects without ever seriously attempting to amend the underlying conditions that tended towards such failures. Monitoring and enforcement of existing regulatory provisions varied over time but remained ostensibly weak throughout the period, and despite repeated affirmations that rules ought to be applied with impartiality, the evidence brought forth by the various inquiries suggests that discretionary oversight in the application of rules was the norm rather than the exception.

Yet, despite recurrent patterns of weak enforcement and the pursuit of land policies that were contrary to the long term sustainability of forest resource use, evidence shows that the progress of institutional change was clearly non-path dependent. Succeeding governments showed a strong penchant for institutional innovation that brought variety and complexity to rule-ordered relationships, a willingness to treat policy as experiments, and modify or change strategies on the bases of lessons learned. The problem, as subsequent chapters will attempt to show, is that non-inclusive unitary control over any vast storehouse of natural resources – especially in monocentric systems of governance that fail to achieve a proportional representation of voice, integrate deliberative decision-making procedures, or integrate clear and enforceable constitutional safeguards – inevitably creates opportunities and incentives for

the pursuit of more narrowly construed interests (e.g., Ascher, 1999; Eggertsson, 2005), whether consciously or purposefully pursued or not.²⁸⁴

²⁸⁴ A clear distinction should be made here between the theory of limited constitutional constraints and the propensity of actors to use such powers to their advantage. Far from suggesting that the succeeding commissioners (and eventually ministers) of the province consistently acted in a selfish or self-regarding way, the point I wish to emphasize here is that limited constitutional constraints invariably benefit those in whose trust power lies, whether their actions are considered harmful or beneficial to the public's interests.

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PART III: PROVINCIAL SELF-GOVERNMENT

GENERAL INTRODUCTION

After several decades of forced collaboration, the joint legislature of Upper and Lower Canada had grown into a relative stalemate. The even distribution of votes that was established at the time of unification no longer reflected the differential population growth of the two provinces.²⁸⁵ With time, policy preferences became more pronounced and the challenge of maintaining the confidence of two distinct legislatures became untenable. Ministries invariably followed one another to defeat, political and ideological divisions rendered the conduct of public business nearly impossible, and the fate of any given government literally rested on the vote of one or two individuals. As social and political differences between the two provinces became more obvious, appeals for change in the provisional constitution of 1840 began surfacing.²⁸⁶ In the words of John A. MacDonald,

*"men of all parties and all shades of politics became alarmed at the aspect of affairs. They found that such was the opposition between the two sections of the province, such was the danger of impending anarchy, in consequence of the irreconcilable differences of opinion, with respect to representation by population, between Upper and Lower Canada, that unless some solution of the difficulty was arrived at, we would suffer under a succession of weak governments, — weak in numerical support, weak in force, and weak in power of doing good.... Parties were so equally balanced, that the vote of one member might decide the fate of the Administration, and the course of legislation for a year or a series of years."*²⁸⁷

Yet, despite the belief that *"some step must be taken to relieve the country from the dead-lock and impending anarchy that hung over [it],"*²⁸⁸ the provinces of Nova Scotia, New Brunswick and Prince Edward Island considered the overall scheme premature and in need of

²⁸⁵ By the late 1850s, the population of the Upper Province exceeded that of Lower Canada by some 250,000 heads, leading to demands for greater proportional representation within the body politic.

²⁸⁶ While the need to formalize the ties between all British colonial possessions was first proposed in the wake of the economic depression that followed the repeal of the corn laws, the first serious effort to give meaning to the idea of a federal union was submitted in 1856 by the Liberal Party of Lower Canada (see Parliamentary debates on the subject of Confederation, pp. 214-216). However, it wasn't until the Cartier-Macdonald administration was sworn to office in the fall of 1858 (after no less than four different governments were prorogued in less than a year) that the Governor of Canada, Sir Edmund Walker Head, and key members of his Council officially engaged the Imperial government on the necessity of revising the serious defects that were attributed to the joint legislature. See "Question of Federation of the British Provinces in America," London: Foreign Office, 1858, CIHM no. 22673.

²⁸⁷ See Address by J.A. MacDonald, February 5th, 1865, p. 26, in "Parliamentary debates on the subject of the confederation..." CIHM no. 9_01461.

²⁸⁸ *Ibid.*

further reflection if not a more convincing rationale.²⁸⁹ On this account, demands for a meeting of delegates were rejected by the British Secretary of State in 1858 but upheld in 1866 at the request of the new MacDonald-Cartier government. In fact, it was not until the imperial government took things into its own hands that a deal could finally be brokered between Britain's colonial dependencies. By then however, the conversation had shifted from a debate over the political rationale for ceding power to a federal unit to the more pressing issue of preserving the political and economic viability of British North America. The problem was that in order to maintain jurisdictional authority and economic progress in a geographically dispersed hinterland such as Canada, the provinces required a central governing body to coordinate trade and other related economic concerns, leverage political and economic commitment to undertake large infrastructure projects such as the building of railways, bridges and canals, and protect the shared political commitment of the provinces to the British monarchy in the face of increasing political and economic aggression by the United States.²⁹⁰ In essence, if British colonial possessions were ever to become self-sustaining and self-governed political entities, they required a common institutional framework to bind their collective interests and develop perennial channels of communication and transportation to ferry increasingly bulky staple commodities (mostly grain, lumber, timber and minerals) across the continent to market destinations in Europe and elsewhere, and facilitate the exchange of ideas, goods and services across the provinces and territorial possessions of British North America. As Smith (1991, p. 457) explained it, "[t]he impetus for Confederation lay in the need for greater public works as much as it did in providing increased security or an escape from political instability in the United Canadas. For this reason the scheme adopted in 1867 can best be described as purposive federalism, whose object was to achieve practical rather than representational or philosophical ends."

As in the case of the Union Act in 1840, the prospect of a revised constitutional framework was again conditioned by the political and economic sureties of Canada's natural

²⁸⁹ See despatches by J.H.T. Manners Sutton (Lieutenant-Governor of New Brunswick) in "Question of Federation of the British Provinces in America."

²⁹⁰ New technologies were needed to connect untouched resource reserves to seaports on either side of the continent. As Lower (1938, p. 13) put it: "The railroad ... was mothered by the desire of the consuming centres for contact with the interior and fathered by the industrial revolution. Every seaboard city wanted to *tap the interior*, to *tap the resources of the interior*" (emphasis in original). "[B]y enlarging the hinterland of particular centres of demand" (*Ibid.*, p. 14), the railroad thus provided access to areas that were heretofore considered unreachable.

resource wealth. For the success of the Confederation scheme ultimately hinged on the capacity of participating provinces to secure a stable and exclusive source of revenue, which at the time, could only be found in the respective resource wealth of each province.²⁹¹ In fact, the revenue issue was a major stumbling block during the Québec City convention of 1864. Since it was understood that central government would retain the rights to what was then considered the chief sources of revenue, namely the customs and excise duties, an alternative solution for the provinces was needed. Since none of the latter (except for Ontario) had municipal level institutions through which public goods and services could be charged for and dispensed with, delegates felt that if direct taxation was adopted as the primary means of supporting the business of provincial government, the federation scheme would be doomed. It was thus decided that the provinces should possess all rights to the lands and resources within their respective jurisdictions and that the central government should allocate general funds on a per capita basis and relative to other financial considerations such as debt and public investments (Bourinot, 1895, pp. 211-212). Consequently, the incentives and prerogatives that led to the creation of Québec's initial set of forest resource institutions never withered, and whoever controlled the reigns of the province's staple trade, as it was then called, ultimately held the key to its political future.

The importance of the Constitution Act, as a decisive moment in the development of provincial natural resource institutions, cannot be overstated. As indicated in the introduction to Part II, the passing of the British North American Act²⁹² (particularly sections 92(5), 102, 109 and 126) ultimately placed the control, management, and disposition of all Crown resources in the hands of provincial executive governments, subject to the collective action of their respective legislatures.²⁹³ Hence, the residual prerogatives of the Crown, which were vested in the Governor in council both prior to and following the Unification Act of 1840, were never dissipated. Power over the public domain was simply transferred to the Lieutenant-Governor, which, under responsible government implies that the power of administration and control should lie within the purview of those who command the

²⁹¹ See also the discussion on the source of provincial revenue presented by A.T. Galt in the Parliamentary Debates on the Subject of the Confederation of the British North American Provinces, 3rd session, 8th provincial Parliament of Canada. Printed by order of the legislature [Microform, CIHM no. 23230], 1865, Published by Hunter, Rose & Co.: Québec, pp. 68-70.

²⁹² (1867), 30 & 31 Vict., c.3 (Imp.), now referred to as the "Constitution Act of 1867."

²⁹³ See comments of Ritchie C.J. in *Mercer v. Attorney-General of Ontario* [(1903) A.C. 73, p. 79].

confidence of the elected chamber (i.e., the Executive Council) (La Forest, 1969, p. 167).²⁹⁴ The implications of such prerogatives are extensive, for the Constitution Act and the subsequent judgments of the highest court of appeal – the Judicial Committee of the Privy Council – made it unequivocal that “a provincial government may, without legislation, exercise in respect of its property the same rights as a private owner”. (*Ibid.*).²⁹⁵ In other words, elected governments could manage, control and allocate the natural resource wealth of the public domain as if such resources were its property, to use and dispose of in the public’s interest. Secure in the precedent established by Canada’s colonial heritage, provincial governments were now free to exploit the resource riches of their respective jurisdictions with few if any constitutional impediments. In continuity with the past, Crown resources were vested in the provinces to provide them with the necessary means of controlling their respective social, political and economic destinies, defray the costs of civil government, and support the production of public goods (La Forest, 1969, p. xii; Smith, 1991, p. 457).²⁹⁶ Only this time, natural resources were destined to become *the* primary source of internal (i.e., discretionary) revenue for those provinces that formed the initial federative union of Canada. Hence, not only was provincial control over territorial resources a necessary entry condition into the federation scheme, it was the principal security for ensuring the jurisdictional and legislative autonomy of provincial governments following Confederation.

Save the limited safeguards of periodic elections and ministerial confidence, the power of Cabinet members to define public policy (i.e., determine collective choices), raise local revenues²⁹⁷ and allocate resources (White, 2006, pp. 256-257) only increased over time. As emphasized in Chapter IV, “rather than rejecting the monarchy, colonial leaders once in control of the legislature seized the Crown’s prerogatives so as to centralize power in the

²⁹⁴ Provincial powers of administration and control do not, however, extend to lands reserved for Indians, which is vested in the Federal government by virtue of section 91(4) of the BNA Act.

²⁹⁵ See *The Queen v. Robertson* (1882), 6 S.C.R. 52, p. 136; *Smylie v. The Queen* (1900), 27 O.A.R. 172; *Attorney-General of Canada v. Higbie*, (1945) S.C.R. 385, p. 430.

²⁹⁶ See speech by Hon. George Brown (February 8, 1865), Confederation Debates.

²⁹⁷ The 1867 constitutional arrangements, as interpreted by the courts, recognize provincial governments as sovereigns with broad legislative competencies, including “powers over property and civil rights in section 92(13) of the BNA Act, along with ownership of natural resources and public property noted in sections 109 and 117 and reinforced in section 92A.” Moreover “[s]ection 92(2) gives provinces the authority to raise *Direct Taxation within the Province in order to raise Revenue for Provincial Purposes*” (Hale, 2006, p. 385, emphasis in original). However, provincial governments were highly reluctant to impose any form of taxation during the early years of the Confederation. In Québec, federal subsidies and the raising of revenues through the sale of natural resources (i.e., timber) provided the main sources of revenue for the government between 1867 and 1897 (Gow, 1979).

hands of the political executive" (Smith, 1991, p. 471). But as Sproule-Jones (1984) contends, they went even further. For the constitutional limitations on the exercise of parliamentary sovereignty (specifically, the independent authority or veto rights of the Lords and the reserve powers of the Crown to prorogue, dissolve, and summon Parliament), which were part and parcel of the Westminster system, never existed in Canada where upper chambers were made subservient to the government in power and the exercise of the governorship function was customarily emasculated to a figurehead role soon after Confederation.

In accordance with the Constitution Act of 1867, the general structure of public administration in the federated provinces followed the architecture set forth by central government. The head of the province's executive government was vested in a Lieutenant-Governor who possessed within his constitutional sphere all the authority of the Governor-General prior to 1867 (Bourinot, 1895, p. 147). The Executive Council was maintained as the principal governing body of the provinces, so long as they retain the confidence of their respective legislatures, and until 1967, Québec was ruled by a bicameral legislature that was composed of a lower elected house and upper council whose members were appointed for life. Election and appointment franchises to the lower and upper houses were conditional to property qualifications, and councillors could commence or amend all classes of legislation except money and taxation bills, but nevertheless held the power to reject the same. In essence, Confederation brought the strength of united interests and allegiance to a common institutional heritage but the basic rules of government remained unchanged. Other than the division of legislative authority and revised jurisdictional boundaries for Québec and Ontario, the supremacy of the executive (whether provincial or federal) in directing the course of public policy differed little from the system that prevailed during colonial rule (Sproule-Jones, 1984).

As a constitutional monarchy, the ultimate source of power in Canada lies with the Crown, and it is only through the Crown that governments (whether federal or provincial) can act. In legal parlance, political authority is thus reserved to the highest political organ that can advise the Crown on all matters of public policy, which under responsible government is attributed to those who command the confidence of Parliament. With the growth of party

politics, confidence was equated with majoritarian rule and by convention, the privilege of advising the Crown came to be assigned to whatever political formation held the most number seats in the elected chamber. Hence, the so-called executive dominance of the Canadian political system (see Bernier *et al.*, 2005; Dunn, 2006; Savoie, 2010; White, 2006) largely stems from the fact that those who monopolize “advice on policy and patronage at the top...[can also] expand their base of control at the bottom” (Smith, 1991, p. 460). Power is derived from and exercised through the legitimacy of the monarchical system and government, within the historical context of Canada, is constitutionally rooted in the office of the Governor-General.

That the institutional structure of the provincial political arena closely follows the executive-centred model of the federal government has already been discussed elsewhere. However, the fact that the provinces owe much of their powers to the empire that had for so long thwarted their claims to self-government merits further consideration. Provincial sovereignty over matters of legislative authority was not achieved because of the BNA Act, but in spite of it. In contrast to the highly centralized federal scheme that the Fathers of Confederation had hoped to establish, power tended to migrate away from the centre and towards provincial legislatures. Smith (1991) underscores several reasons why this happened. First, prior to confederation, the loci of control resided in the provinces themselves, and not in any central governing body. Since the Union Act of 1840, matters of local interest were essentially handled by local assemblies, with the role of the Governor-General becoming progressively centred on matters of Imperial interest (e.g., trade and defence). As such, the provinces were able to develop their own social, political and economic heritage. Drawing on more or less distinct patterns of settlement that helped to congeal cultural referents, they were able to develop relatively stable political formations and majority-led governments long before their federal counterparts.²⁹⁸ Second, instead of reinforcing the authority of the central government, Canada’s ceaselessly expanding territory and localized patterns of settlement tended to further socio-political isolationism, thus focusing provincial legislative attention on more local issues. Third and most crucially, despite having fought an obstinate empire for more than half century for the right to self-government, the provinces could now count on the

²⁹⁸ See also Morton, W. L. (1943). “The Extension of the Franchise in Canada: A Study in Democracy,” Canadian Historical Association Report, page 79.

legal precedents established by their forebears, and the British court of final appeal more specifically; to challenge the centralizing arrangements of the BNA Act. In fact, the provinces owe much of their current-day sovereignty and legislative authority to the more than 170 decisions handed down by the Judicial Committee of the Privy Council on matters related to the Constitution Act of 1867. Among some of the more critical rulings of the Judicial Committee are those that recognized provincial legislatures as co-sovereigns in the Confederation and thus equal in power and authority to the central government.²⁹⁹ By ruling that the Lieutenant-Governor is "as much a representative of His Majesty for all purposes of Provincial Government as is the Governor-General for all purposes of Dominion Government,"³⁰⁰ the subservient relationship prescribed by the Constitution Act, between the Governor-General and the federally appointed provincial Lieutenant-Governors, never materialized. Instead, provincial autonomy was guaranteed through the same governing principles under which the federal government operated. It is in fact through the instrumentality of this legal artifact that provincial executives, as advisors to the Crown, owe their powers.

Institutional precedents thus run deep in the constitutional makeup of the Canadian confederacy. The warrantability of executive-centred collective choice arenas at the federal and provincial levels stems not from an effort to improve representational democracy, but from the legal and political legitimacy of the constitutional principle embodied in the idea of a compound monarchy (Smith, 1995). Whether federal or provincial, the sovereign rights of Canadian governments remains constitutionally vested in the Crown (Hicks, 2010, p. 10). Consequently, other than the adoption of a somewhat flexible division of powers, the administration of public affairs in Québec continued along the same centralizing path as it did under colonial rule. The small clique of imperial officers who administered the province prior to unification was replaced with a slightly larger circle of elites following the introduction of responsible government, but executive dominance was maintained with few if any impediments both before and after Confederation (Sproule-Jones, 1984, p. 97). As such, instead of moderating the overbearing ambitions of Prime Ministers or Premiers and their

²⁹⁹ *Hodge versus The Queen* (1883). In *Toronto Electric Commissioners v. Snider* (1925), the Judicial Committee went even so far as to suggest that the provinces were "in a sense like independent kingdoms with very little Dominion control over them" and "should be autonomous places as if they were autonomous kingdoms"

³⁰⁰ *Liquidators of the Maritime Bank v. Receiver-General of New Brunswick* (1892) AC. 437.

Cabinets, constitutional conventions tied to the reserve powers of the Crown (as interpreted by the courts) have nearly always been used to advantage the executive over the legislative branch (Hicks, 2010, pp. 8 and 18; Sproule-Jones, 1984, p. 98).³⁰¹

Although enforcement of the Crown's reserve powers (especially in the absence of courts to adjudicate constitutional trespass) may require what Hicks (2010, p.25) euphemistically refers to as "extra-legal" action (i.e., "pressure of public opinion, passive and active resistance, and ultimately revolution"), the executive's dominance in provincial legislatures is not boundless nor without remedy. The Constitution Act of 1867 foresees, among other things, that provincial legislatures shall have the legal authority to alter their constitution (except for the Office of the Lieutenant-Governor)³⁰² and parliamentary rules require, in of themselves, that adequate opportunities for legislative scrutiny and debate be provided for. The proverbial constraint of responsible government has obviously evolved over time (especially after 1960s in the case of Québec) to take on the much more nuanced meaning of accountability, be it in terms of information disclosure, increased consultations and debates, or more meaningful participation in legislative committees (e.g., review and amend bills, discuss spending and policy measures or assess various components of the government) (Dunn, 1988, 1990). Yet, governments in the Canadian parliamentary system have always maintained a fair amount of discretionary power over the information that gets disclosed and the issues that get discussed. In contexts where votes carry economic value, legislative committees are liable to become political markets wherein elected representatives essentially assume the role of political brokers for specific interest (Buchanan and Tullock, 1962, pp. 91-92). But given the high costs of organizing and aggregating preferences within large communities (Olson, 1965), the supply and demand process of legislative action tends to favour "well-organized and concentrated groups at the expense of diffuse interests" (Tollison, 1988, p. 343). Hence, the extent to which such measures are truly used to enhance public scrutiny and executive accountability is debatable. If there is one constant theme in the writings of both past and present political scientists and constitutional scholars, it is that the

³⁰¹ Reserve powers refer to the prerogative rights of the Governor-General or Lieutenant-Governor to interfere in the administration of public affairs, should the interests of the Crown (i.e., public) be transgressed.

³⁰² Section 92, Class 1 of the Constitution Act, 1867, later repealed and replaced with Section 45 of the Constitution Act, 1982.

powers of executive within the Canadian context never waned nor has it ever been impeded by institutional constraints of one kind or another.

How the underlying rules of the game affected the evolution of forest resource institutions from Confederation until the end of the 1980s will be addressed in the next three chapters. Chapter VI focuses analytical attention on the first four decades of provincial autonomy, the rise of the pulp and industry, leading to the adoption of conservation-based regulatory measures. Chapter VII discusses the factors and events that compelled government to rid itself of the limitations of forest conservation and adopt a more flexible management approach that would help answer the ever expanding resource needs of the pulp and paper industry. Finally, Chapter VIII provides a brief overview of the key events and institutional changes that led to the 1986 forest reform, which is widely regarded as the primary source of the crisis that led to this investigation. Throughout, the struggle to achieve sustainable outcomes is fraught with remarkably consistent patterns of recurrent appropriation and provisioning problems, increasing externalities, and a progressively complex understanding of forest systems.

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CHAPTER VI: SUSTAINING PRODUCTIVITY THROUGH CONSERVATION

6.1 Introduction

At the onset of Confederation, the problem of forest resource use was no longer limited to the expediency of approximating politically defined rates of exploitation. After sixty years of steadily increasing levels of appropriation from the province's most valuable pineries and along the accessible reaches of the greater St. Lawrence watershed, the diminishing level of merchantable timber was no longer a conjectured possibility but an empirical reality. Moreover, in addition to having to contend with the cumbersome issue of a diminishing pool of resources,³⁰³ the other problem that dogged officials, well into the twentieth century, was the competing land use claims of an increasingly vocal and powerful colonization movement that was itself driven by a no less powerful Catholic Church. Together with Québec's need for revenue and the growing demands of industrialisation, the stage was set for a series of confrontations that would eventually lead to the adoption of yet another single institutional remedy to cure the multiple ailments it now faced, i.e., forest conservation.

To understand the dynamics of forest resource use in late 19th century Québec, one must necessarily consider the role of government, as the sole purveyor of resource rights and arbiter of institutional selection and replication. Three distinct but mutually inclusive necessities moderated the choice-sets of political-economic actors during this period: 1) the need to generate revenues to defray the costs of government, including the provision of public goods and services; 2) the need to instil favourable investment conditions that would both attract and retain investments by large capital holders (e.g., abundant resource supplies,

³⁰³ A distinction needs to be made here regarding the diminishing levels of timber fit for squaring or other purposes for which large sized timber might be preferable. Québec's boreal forest was still untapped and incursion into the mixed forest habitat of the Laurentian shield and lower St. Lawrence region had only begun. Reference to diminishing resource stock during this period is intimately tied to the growing scarcity of large sized trees (particularly pine) from the province's southern frontier.

low energy costs, a stable work force); and 3) the need to provide long term assurances (e.g., supply guarantees and fixed prices) to would-be investors.

This chapter considers how the forest sector and the administration of public lands evolved between 1867 and 1906 to address the recurrent dilemmas of competing land-uses and diminishing resource stocks, as well as the need to address the novel problem of industrialization and the distinct supply and energy requirements of the pulp and paper sector. The chapter is divided into three sections that are reflective of the changing yet interrelated foci and strategies of government in late 19th century Québec: revenue enhancement, resource conservation, and industrialisation.

6.2 Revenue Enhancement

The importance of “*Woods and Forests*” in Québec, as a “*source of the national income*” was firmly established at the onset of the very first report from the newly appointed Commissioner of Crown Lands.³⁰⁴ “*Under the new Constitution*” Commissioner Beaubien indicated, Québec “*should possess in the public domain her chief source of revenue,*” provided that “*a reform of the numerous abuses which then hindered operations in the forests*” was undertaken to make sure that the “*timber trade*” would in fact be able to “*contribute more liberally to the public revenue.*”³⁰⁵ To this end, a “*Select Committee*” was appointed “*to consider the question of cutting timber on public lands.*”³⁰⁶ The Committee made four broad recommendations. First, “*the plundering of public lands of merchantable timber,*” had to be suppressed by means of improved supervision. Second, the needless waste of hemlock trees for the sole purpose of extracting its bark for use in the tanneries – a problem that had yet to receive any attention in the writings and correspondences of Crown Lands Department under the Union government – had to be brought under control.³⁰⁷ Third, public lands had to be better surveyed and all areas unsuited for agricultural purposes should be maintained as permanent forest reserves. And fourth, given that “*public forests form[ed] the principal wealth of the Province and one of its chief sources of revenue,*” the Committee

³⁰⁴ Québec Sessional Papers, No. 1 (1869).

³⁰⁵ *Ibid.*, p. ix

³⁰⁶ JLAQ, Vol. 1, Session 1867-68, Appendix 9, Second Report, dated 20 february, 1868.

³⁰⁷ The Committee urged the need to increase duties, in order to compel appropriators to make use of both the bark and the timber of harvested hemlocks. The Committee estimated that some ten thousand acres of hemlock forest stands were annually cut and stripped of their bark, the wood itself being left to rot on the ground.

recognized that “*merchantable timber [was] disappearing with alarming rapidity, and the profits which the Province and the timber trade derive[d] therefrom, [were] very much inferior to what they should be.*” To amend the situation, the Committee urged the need to extend leases on fixed terms of 10 to 15 years, provided such leases did not obstruct settlement. This, the Committee argued, would give “*lumberers...an interest in carefully preserving the timber on their limits, ...working them systematically and economically...[to] derive...more profit, [for which] the government, without prejudice, might exact ...higher duties, [and] increase the public revenue.*” In sum, the evidence gathered by the Committee helped confirm growing apprehensions regarding the state of the province’s pineries and the need to better manage such stocks for the future. Past interventions had not produced their desired effects and the newly established provincial government was determined to change the situation, particularly if such changes might help increase the province’s share of benefits.

Changes were swiftly implemented in the form of two separate orders-in-council (17 July and 2 October, 1868)³⁰⁸ and a complete overhaul of the legislation affecting the sale and management of the Public Lands.³⁰⁹ The first order slightly raised the timber dues applicable to cut timber from the last revisions (13 June, 1866 – see Chapter V)³¹⁰ and the second established a 21 year licensing agreement for all existing licenses, thus giving limit holders the right to annually renew their titles until April 30th, 1889 (government reserving the right to change the tariffs on dues once after September 1878). Ground rent was increased from 50 cents to \$2.00/year per square mile and the purchase (or transfer) bonus was set at \$8.00 per square mile.³¹¹ Limit holders were hereafter allowed to pledge their limits as a security to fund their operations and all sales were to be conducted through public auction, except in situations where it was deemed “*advisable in the interest of the Government to grant limits by private sales.*” And perhaps most famously, the government of Québec imposed the first ever diameter restriction on timber in Canada, which was set at 12 inches at the stump for red and white pine. While this oft-cited change of policy is generally regarded as a major

³⁰⁸ Quebec Sessional Papers, No. 1 (1869), pp. 45-47.

³⁰⁹ 32 Vict., c. 11, An Act respecting the sale and management of the Public Lands (Assented to 5th April, 1869).

³¹⁰ Oak & walnut per cubic foot (ft³) = 3cts; Elm, ash & tamarack = 2 cts/ ft³; Red/white pine, birch, basswood, cedar, spruce = 1.25 cts/ ft³; Pine logs (13.5 ft & more than 17 inches at least diameter) = 15 cts/each; Pine logs less than 17 inches at least diameter = 10 cts/each; Spruce logs 13.5 ft = 5 cts/each; Cord wood (hard) 16cts/cord; Cord wood (soft) 8 cts/cord.

³¹¹ The transfer-bonus of \$8 per square mile was introduced to reduce speculation as much as to bring in extra revenue to the state in the event that such transfers would proceed. See RCCL, 1872.

development towards the conservation of pine timber, the new regulation actually made it profitable to cut smaller sized trees, since prior to this revision, white pine was reckoned to contain 70 ft³ of timber and red pine was charged at a rate of 38 ft³. With this change of rule, it was now possible to profitably cut trees that contained as little as 15 or 20 ft³ of wood fibre. When considered in light of the province's notoriously weak ability to enforce its own rules (Drummond, 1879, p. 16), the significance of this change quickly withers away. As for the other recommendations raised by the Select Committee of 1869, the suggestion that government should put an end to timber squaring on account of its wastefulness and minimal contribution to social welfare was altogether avoided or neglected. Provisions to promote local industry (e.g., ship building and a ban on saw-log exports) were likewise dismissed, as were recommendations dealing with the need to reduce pressure on eastern hemlock.³¹²

In truth, the changes introduced in 1868 were just the beginning of a long streak of regulatory experimentation that was driven by the need for public revenue, the demands of the colonization movement, and the necessity of securing the supply needs of lumberers and the privileges of long term tenures. As such, the first formal legislative effort to affect the sale and management of the Public Lands came in 1869 (32 Vict., c. 11). Among the more notable changes that the new law introduced, provisions were made to divide the administration of the public domain into seventeen agencies, charged with overseeing the sale of public lands, the granting of timber licenses, and monitoring and enforcement efforts relative to the duties and obligations of settlers and timber limit holders (Section 9). The Lieutenant-Governor in council (i.e., the Executive Council) retained exclusive rights over the entire public domain, including the right to add, amend or change rules as required (Sections 10, 20 & 21). It alone exercised the right to sell or dispose of nearly any parcel of

³¹² According to Joly (1878, p. 16), production of hemlock extract rose from 23,000 barrels in 1868, to 29,000 barrels in 1876, requiring some 43,000 cords of bark, five-sixth of which was derived from the Eastern Townships of Quebec. Similarly, Small (1884, p. 63) lamented the "indiscriminate destruction of hemlock forests to supply bark for manufacturing extract for exportation,... leaving the timber thus stripped to decay." The first real attempt to curb the wasteful practice of bark-stripping came in the Revised Regulations of 3rd February, 1888, which set the cord of hemlock bark at 32¢ per 128 ft³. However, the inadequacy of this measure was bluntly spelled out by Kirkwood (1893, p. 25): "the timber is allowed to rot on the ground, and squatters, as a rule, either burn or allow it to rot if not close to a market. In some districts the best is sawn into lumber or cut into lathwood for export to England, the balance for railroad ties or cordwood. Where a farmer makes bark on his own land, he cuts the peeled trees into saw logs and clears the land. Where trespassers peel bark they leave the trees to rot." For Kirkwood (*Ibid.*), the reasons for this were obvious: "An acre of good hemlock land would produce from ten to twelve cords of bark, worth from \$30 to \$36..., at a cost... of \$1 per cord for felling and \$1 per cord for carting. The cord of hemlock lathwood (128 cubic feet) is worth \$8 at Montreal or Quebec. The conclusion arrived at from this evidence [is] that our hemlock forests are being and have been rapidly depleted and destroyed... And the remedy seems to be that active measures be resorted to for select cutting, natural reforestation and planting, and systematic forestry management."

land of its choosing (Sections 12 to 16), including the right to “*set apart ... as timber land, such portion or portions of the public lands ...[which] may be found to be valuable for its timber, but generally unfit for purposes of colonization*” (Section 10, Article 3) – thus instituting the very first legislative effort to set up forest reserves in North America. Finally, with regards to the near permanent problem of settler encroachment on licensed timber limits and related practice of acquiring land rights for the mere purpose of extracting timber at a fraction of the cost of a license to do the same on public lands, a number of measures were introduced to limit speculation and the purchase of land under false-pretences.³¹³ However, given the size the province, the limited number of agents, and the inherent lack of control that the Department could reasonably exercise over its subordinates, the incentive to evade the law was at best subdued, not removed.³¹⁴

Nevertheless, the government did manage to substantially increase its share of revenue. During the last year of the joint legislature (1867-68), the total income arising from timber dues, bonuses and ground rents had attained its highest level ever at \$369,800, out of which, only \$95,116 belonged to the future province of Québec.³¹⁵ In the hands of the newly established provincial Crown Lands Department, this figure more than tripled to \$331,751 in 1869, before increasing to \$444,752 in 1872.³¹⁶ However, as the then leader of the Opposition and staunch conservation advocate Henri Joly recognized in December 1872, the figures offered by the Crown Lands Department told only part of the story.³¹⁷ Between 1867 and 1872, the government sold off no less than 17,624 square miles in timber limits, some of which sold for as little as \$4.00 per square mile.³¹⁸ Between December 1871 and November 1872, Joly estimated that the Conservative government sold no less than 11,200 square miles

³¹³ Under 32 V., c. 11, limit holders retained the right to cut timber on any parcel of land sold for settlement purposes (section 16). To prevent the purchase of land by third party agents acting on behalf of lumbermen, the registration of land sales was rendered compulsory (Sections 18, 34, 35 & 36). And to bring an end to the practice of claiming that timber was cut on private land in order to evade the payment of crown timber dues, an order-in-council was passed on March 29, 1870 (Quebec Official Gazette, 1870, No. 16, Vol. 11) to the effect that affidavits or sworn statements would no longer be accepted as sufficient proof of the origins of the cut timber. Only by close examination of a Crown Lands Agent and concurrent certification of available facts, including the fulfilment of settlement duties or possession of land title or letters patent, would timber, saw logs or other wooden articles be declared exempt from such duties. Needless to say, the administrative and logistical burdens highlighted in these measures rendered their application improbable if not impossible.

³¹⁴ As in the past, the problem of would-be settlers seeking title to the best timbered lands of the province remained a constant theme in the annual reports of the Crown Lands Department (e.g., RCCL, 1874, p. vii-viii; JLAQ, 1887, Vol. 21, p. 277-279). In fact of acquiring land under false pretences lasted well into the 1920s.

³¹⁵ RCCL, 1881, p. 71.

³¹⁶ RCCL, 1869 to 1872

³¹⁷ DALQ, 1872, pp. 159-160 and 193-199.

³¹⁸ *Ibid.*

of the finest timberland in the province (through public and private sales) for an average ground rent bonus of only \$8.27 per square mile, while in Ontario, the average was \$113.96 per square mile for the same period. In fact, the government was so heavily criticized for its disposal of public lands for a mere trifling of existing market values that it had little choice but to amend the existing legislation (36 Vict., c.9) in favour of public auctions.³¹⁹ The idea that resource rights should be sold on a competitive basis was maintained as a basic administrative principle (though easily manipulated – see discussion in Chapter VII) until Maurice Duplessis reinstated the privilege of the Lieutenant-Governor in council to sell any portion of the public domain via private sales in 1937.³²⁰

6.2.1 Dealing with Emerging Threats

In spite of the government's relative success regarding its increased shares of revenue, the precarious nature of such results and the ever present threat of overproduction and exhaustion loomed high in the thoughts of Québec's first Commissioner of Crown Lands, J.O. Beaubien. Yet, though he believed that restoring "*forests denuded by the axe of the lumberer or by the oft-recurring fires,*" whether "*by sowing or by planting,*" would be the surest signs of a "*wise economy and foresight,*" Beaubien considered that the costs of doing so, without "*some assurance that an attempt of this nature would meet with success,*" rendered the idea impracticable within the Canadian context.³²¹ Of course, Beaubien was not the first to consider the need to moderate ongoing rates of appropriation or the necessity of investing in forest maintenance activities,³²² but his concerns do highlight the fact that decision-makers were at least aware that the system in place was not sustainable, and that it tended to offset costs to future generations. As Beaubien put it,

³¹⁹ RCCL, 1872

³²⁰ The principle of public auctions has only recently been reintroduced for only 25% of the estimated maximum sustainable yield, under the Sustainable Forest Development Act, Bill 57 (L.Q., 2010, chapter 3).

³²¹ *Ibid.*

³²² RCCL, 1873, pp. xiv-xv. In considering the ongoing threats posed by overexploitation, land use change, and forest fires, yet another newly appointed Commissioner of Crown Lands again raised the issue of restocking public forests in 1873. However, other than suggesting that the province ought to encourage the establishment of "*large nursery grounds in different parts of the province,*" no credible effort was ever made to actually change the situation.

*"The constantly increasing value of this source of wealth... ought to make us think of the precautions which should be adopted... so as to not expose ourselves to see it some day exhausted."*³²³

To his credit, Beaubien did introduce legislative measures to attenuate the risk of forest fires in 1870 (Act 33, Vict., c. 36) and further the Department's ability to enforce its own rules by appointing forest rangers in 1873. While early enforcement measures did appear to have a sobering effect on the activities of lumbermen,³²⁴ the threat of sanctions never actually succeeded in putting an end to abuse. As with similar efforts in the past, rules were so generally permissive and enforcement negligible, that regulatory provisions made little if any difference to the way forests were used or exposed to fire hazards (Drummond, 1879, p. 14).³²⁵ In fact, human-induced forest fires were widely believed to have increased during the 1870s, leading to a situation where more forests were reportedly being consumed by fire than degraded or cut through direct human intervention (Drummond, 1879, p. 13; Joly, 1878, pp. 5-9; Morgan, 1886, p. 16). The reasons for such meagre success were relatively clear. Forest rangers and timber agents were poorly paid; possessed little or no training; and worked in isolated conditions in remote areas that made it tempting or at least easier to negotiate side agreements with trespassers and offenders. Moreover, since forest rangers were employed during the winter months only (i.e., the lumbering season), operators quickly understood that if they hired the same men during the rest of the year, they would invariably secure more lenient and favourable inspections during winter operations. In other words, the system in place provided lumbermen with many opportunities to co-opt field officers to suit their interests (Gillis and Roach, 1986, p. 111).

As far as lumbermen were concerned, the rising value of timber and the newly adopted 21 year leasing arrangements created a long term perspective that had so far been absent from the management of public forests. As such, operators were no longer prone to discount the value of future returns and from 1870 onwards, lumbermen began hiring watchmen to keep an ever present vigil over their limits, prevent forest fires, and protect their berths from

³²³ See Woods and Forests, in RCCL, 1871.

³²⁴ RCCL, 1874, pp. vii-xiii. Fines in the first years of operation increased from \$3,186 in 1872-73 to \$32,906 in 1873-74. However, the amount of money collected after 1874 dropped sharply to an annual average of \$10,000 (see RCCL, 1881, p. 74).

³²⁵ As specified in Act 33, Vict., c. 36, land clearing was permitted year round except for the months of July and August (sect. 2), and all other uses (i.e., cooking, heating, or industrial purposes) remained unaffected (sect. 3). Hence the use of fire for land clearing was permitted in the driest months of the year (i.e., April and May).

trespassers or would-be timber thieves.³²⁶ The decision of the Crown Lands Department to hire dedicated forest rangers to monitor and enforce its own rules was largely stimulated by the willingness of lumberers to bear the costs of protecting their own timber assets.³²⁷

Revenues from the sale of Crown timber continued to increase during the early 1870s, reaching a high of \$532,735 in 1874 before dropping below the four hundred thousand dollars mark until 1881, due to the collapse of the American and European financial markets in 1873 and the world-wide economic depression that followed.³²⁸ When the economy picked up again at the start of the 1880s, the context within which the forest sector operated had taken a decisive shift. The ideas, values, and beliefs that informed both the state of North American forests and their management had irrevocably changed. Conservation, and forest conservation more specifically, provided the new paradigm within which forests out to be managed, and the norm by which success ought to be measured.

6.3 The Case for Forest Conservation

The receding forest cover of Eastern Canada had become painfully obvious to most observers at the onset of the 1870s. Even the first Prime Minister of Canada, John A. MacDonald, could not help but reflect on *"the sight of immense masses of timber passing by the windows"* of Parliament, in 1871, and *"the absolute necessity for looking into the future of this great trade."* For as MacDonald observed, *"we are recklessly destroying the timber of Canada and there is scarcely a possibility of replacing it... It occurs to me that the subject should be looked in the face and some efforts made for the preservation of our timber."*³²⁹ Others were more blunt in their assessment of the situation. In a letter to U.S. National Board of Trade in 1872, lumberman turned conservationist James Little complained of the *"astonishing want of foresight"* that is leading lumbermen everywhere *"to build new and more capacious mills, and increase the manufacturing capacity of the old ones, as if ...*

³²⁶ RCCL, 1871.

³²⁷ There is some confusion in the reports of the Commissioner of Crown Lands regarding the hiring of forest rangers. While the 1871 report points to the use of forest rangers to monitor the activities of lumbermen, the 1874 report indicates that the rangers were only formerly appointed in 1873.

³²⁸ RCCL, 1881, p. 74.

³²⁹ MacDonald to John Sandfield MacDonald, 23 June 1871. National Archives of Canada, Sir John A. Macdonald papers, MG26A, vol. 518 pt. 4, LB15, p. 963.

timber could be grown like a crop of weeds."³³⁰ And by their ceaseless need of revenue, Little (1876, p. 4) later commented, the governments of Québec and Ontario had done "*all in their power to hasten the striping of the country of its invaluable timber resources...by throwing them on the market, year after year, without any reference whatever to the requirements of the trade*" or the availability of supplies.³³¹ In truth, the Hon. G.H. Joly (1878, p. 4) reckoned,

"Men are the same all over the world. They never set much value upon the free gifts of Providence, and disregard them in proportion to their abundance. Timber, fish, and game have been destroyed everywhere in the same way. When what appeared to be inexhaustible becomes exhausted, it then begins to be valuable and we must pay for our experience."

By the mid 1870s, forestry operations in the greater Ottawa Valley had reached the head waters of its major tributaries, working three to four hundred miles inland, and as far north as Lake Témiscamingue (Joly, 1878, pp. 3-4). Elsewhere in Québec, the best pine reserves of St. Maurice, Saguenay and Lower St. Lawrence were largely decimated:

The "huge tract of lumber country, between the Ottawa and the St. Maurice that separated (or rather appeared to separate) the lumbermen working on those two rivers, by what seemed an inexhaustible and endless forest, [was now] ... tapped through and through" (Ibid).

While a vast storehouse of spruce and some "*second-rate Pine*" remained "*for generations to come*" (Ibid., p. 2), the worry then was over the growing scarcity of "*the really fine Pine*" that was "*required to keep up [Canada's] great timber export trade*" (Ibid., p. 4). After more than half a century of indiscriminate felling, timber squaring, and uncontrolled land clearing, "[t]he results stares us reproachfully in the face" Joly (Ibid.) remarked, and nowhere was this more evident than in "*the Province of Québec, the oldest Province of the Dominion*":

"The old settlements are painfully bare of trees; you sometimes go miles without seeing a tree worth looking at, and the passing stranger fancies himself in a country

³³⁰ Little, James. 1872. The Timber Trade and Reciprocity: A letter to the National (U.S.) Board of Trade Meeting (Oct. 22, 1872), in William Little (1890, pp. 32-33).

³³¹ Little, J. 1876. The Timber Supply Question of the Dominion of Canada and the United States. Lovell Printing And Publishing Company, p.4

more denuded of trees than the older parts of Europe. There is a large district of good agricultural land south of Montreal, where the scarcity of firewood, which is a matter of life and death in a climate like ours, has compelled many a farmer to sacrifice a fine farm and leave the country. There are many other parts nearly as bad, and, unfortunately, the process of destruction is going on even now in more places than one" (Joly, 1878, p. 4).³³²

The situation in Québec was far from unique. Everywhere in Eastern North America and in the United States in particular, the pace of deforestation and land use change was proceeding at alarming rates and concern over the impending shortfall of timber supplies, and related effects on climate, watershed maintenance, pollution, and the economy in general preoccupied political and economic leaders on both sides of the border (e.g., Drummond, 1885; Hough, 1880; Kirkwood, 1893; J. Little, 1876; W. Little, 1890; Morgan, 1886; Phipps, 1883; Small, 1884). Discussion on the services that forests provide and the inherent nature of appropriation and provisioning problems in the United States³³³ and Canada³³⁴ were documented, and the search for solutions drew on the experience of nations and regions from around the world. For as Morgan (1886, p. 11) keenly observed, other than,

"revenue to our treasury...there are other and more all absorbing interests that should impel us to protect and conserve our forests, such as climatic changes consequent thereon, our public health, our agricultural prosperity, our exposure to floods and torrents – in fact, our very existence as a great people."

Even though forestry was widely regarded as Canada's most important staple trade and a key contributor to its economic wellbeing, second only to agriculture, Drummond (1879, p.13) posited that such progress was largely achieved at the expenses of eastern Canada's most prized forests. In the case of Québec, Drummond (1879, p. 16; see also 1885) argued that the principal failure of the system lay in the use of concessionary grants (i.e., timber

³³² In a *Memorandum on the Crown Timber Forests of the Province of Quebec* submitted to the American Forestry Congress, at Montreal, in August 1882, long time timber Agent A.J. Russell advanced that "the valuable timber of our [Quebec's] forests is being rapidly destroyed by the commercial demand for it and by desolating fires." Scarcity of wood for fencing, building and fuel "has long been felt in the oldest settlements," contributing to the "increasing difficulty of living, and consequently diminishing the value of farms." In *Reports on the Forests of Canada to the Parliament in Great Britain* (1885), p.23. Published by Eyre and Spottiswood. Available at [http://www.archive.org/details/reportsonforest00canagoog].

³³³ See Report of the American Association for the Advancement of Science to the U.S. House of Congress, 1874, "Cultivation of Timber and the Preservation of Forests," Report no. 259, 43rd Congress, 1st Session; Hough, F.B., 1878-80. Report Upon Forestry, prepared under the direction of the Commissioner of Agriculture, in pursuance to an Act of Congress approved August 15, 1876. Volume I (1878) and II (1880), Washington: Government Printing Office.

³³⁴ In particular, see Phipps (1883) and Kirkwood (1893). An early example of pollution by sawmill effluent is provided in Ratté, A and R.J. Wicksteed, 1886. *The Saw-Dust Nuisance in the River Ottawa: Memorandum*. Evening Journal Print, Ottawa. CIHM no. 12367.

limits). He opined that timber berths provided nothing less than a *de facto* open access system, regulated by user privileges instead of user requirements or constraints:

"[T]he grave objections of this system are that it subjects the public lands to unrestricted waste for just such length of time as the lumberman finds it profitable, without any regard to the future; and, on the other hand, it places the Government in the position of an owner desirous of making the largest possible immediate return, regardless of the impoverishment of his possessions in the near future."

Drummond called for more clearly stated and enforced diameter size restrictions on harvestable trees; sufficiently long fallow periods (i.e., 25 years) to allow younger trees to grow and seedlings to establish; an end to the production of square timber; an adjustment of sawmilling capacity to that of the available pools of resources, such that operations could be maintained indefinitely within any given area; the levy of a special tax or duty to invest in the surveillance of forest resource use and the general maintenance of forest productivity (Drummond, 1879, pp. 16-17; 1885, pp. 5-7).

One of the most cogent if not powerful arguments to have been formulated at the time, concerning the causes of Québec's growing forest resource problems, lies in the 1878 report of Hon. H.G. Joly de Lotbinière. To consider the full breadth of his argument, it is necessary to recall substantial portions of his report. "*Lumbermen*," Joly (1878, p.11) noted, "*know [that] the only remedy [to the waste of timber in the public forests] is to decrease production; they acknowledge it in their Conventions.*" However, "*with few exceptions, the lumbermen of Canada, as a rule, cannot stop their production of timber; they can scarcely curtail it.*" As such, lumbermen were not "*free agents.*" They depended "*on the will and caprice of others, from the obtaining of timber berths to work upon them, the hiring of men, the supplying of provisions, ... down to the cutting, squaring, hauling, ... and shipping*" of merchantable articles. Their relations "*with the advancers of money, the banks, the brokers, the purchasers in England, [were] of such a complicated nature that it [was] difficult for them to realize at any time what their financial position [was].*" They were "*dependent upon others, they have been so from the beginning*" and could do little to "*shake off all connexions with the trade.*"

Hence, if lumbermen were indeed aware of the "*remedy for over-production,*" as Joly (*Ibid.*, p.12) insisted, they could "*only apply it successfully with the help of the Provincial*

Governments," which have both the right and duty to interfere. They have a "*right, because the timber belongs to the Province*" and they have a "*duty, because they are answerable for every stick.*" While nearly any lumberman would be willing "*to admit that he (or rather his neighbour) is cutting too much timber, and that he would make more profit with a lesser quantity*" by increasing the marginal benefit of every unit of wood and correspondingly decreasing their level of effort in the field, the rules in place neither promoted such behaviours nor provided lumbermen with the necessary means to change the structure of their situation. Should there be "*an inexhaustible supply of timber,*" Government might have been excused for not interfering "*to protect the lumberman against himself,*" if for no other reason than the "*larger amount of timber dues*" it would otherwise receive. But the pine forests that were the primary concern of lumbermen were becoming "*rapidly exhausted, and their produce [merely] sacrificed*" for the benefit of an inefficient system. Fundamental changes were needed in the way forests were considered, and how the costs and benefits of existing rules affected outcomes over the long term for lumbermen, government, and society itself. While a "*decrease in the production of timber, in so far as the Government [was] concerned would [mean] a corresponding decrease*" in the returns that Crown lands provide, Joly argued that citizens and governments had to understand that what the system generated were "*receipts,*" not "*revenues.*" For the idea of revenue implies an "*income or annual profit received from lands or other property. [Yet] it is nothing of the kind in this case.*" As Joly expounded, "*We have not been spending the income or annual profits of our forests, but the forests themselves – not the interest, but the capital.*"

While governments certainly cannot be expected to fully control any trade, provincial governments were uniquely privileged in the case of public forests, since they were (and remain) constitutionally vested as "*parties to the trade,*" both as "*owners, and sellers of the standing timber*" (*Ibid.*). Hence, "*if we wish to save our forests,*" Joly (1878, pp. 12-13) stressed, then "*the quantity of timber cut every year must be considerably reduced...to balance the yearly cutting of our forests with their annual growth.*" And in like proportion, "*the revenue of our Crown Lands must shrink..., but [instead of spending the capital], it will become a bona fide revenue upon which [the province] can permanently rely.*"

The very persistence of wasteful practices such as timber squaring can only be answered by the fact that succeeding governments considered that it was not in their interest to change the incentives resource users faced. As Joly (1882, p. 10) later pointed out:

"Many people say that Government ought to take up forest tree culture, because man's life is too short for such work... [B]ut, unfortunately, Governments' lives are even shorter than men's lives, and they don't appear to have time to devote to the cultivation of forest trees."

Yet, after more than forty years of evidence showing how such production not only robbed the province of its very best trees, but did so at the expense of improved social and economic prosperity is puzzling to say the least. While square timber makers were prone to argue that it pays them and the government to make such articles, Joly (1878, p. 14) countered that the more important question is whether or not such production pays *"the country at large?"* In other words, the private benefits of square timber manufacturing might have been substantial, but the social costs of producing such timber were considerably higher (as undoubtedly were the ecological costs). Squaring resulted in the net loss of nearly one fourth of every tree, in addition to lost wages and opportunities arising from the wholesale shipment of squared timber to the United Kingdom, where it was then cut into various sized planks, boards and other wooden articles that could have been manufactured in the province and sold at a profit (Ibid.; see also Kirkwood, 1893, p. 159). As the Commissioner of Crown Lands for Ontario put it:

*"[S]aw-milling is...a factor in the settlement of the country, from the fact that many of the employees, from their steady habits and value as workmen, are kept in permanent employment summer and winter in connection with the establishments, and are induced in consequence to take up lands in the vicinity, which are improved by the families of those having grown-up children, and by hired help in the case of unmarried men, till ultimately considerable sections in the neighbourhood of the mills would become settled and cleared, with comfortable homes on the locations; while, on the contrary, the men employed in getting out square timber are generally without fixed homes or continuous employment. Their engagements terminate in the spring; in the interim, until they re-engage for the following winter, they too frequently remain idle, and spend their earnings in a reckless manner, and are penniless and often in debt when they return to the woods."*³³⁵

³³⁵ RCCL for the Province of Ontario for the Year 1879, cited in Kirkwood (1893, pp. 168-172).

To address the situation, Joly (1878, p.14) suggested that provincial governments could either increase the dues exacted (per cubic foot) to make the production of square timber more onerous,³³⁶ or the federal government could place a uniform export duty to discourage production, should the provinces fail to “agree on some joint action.”³³⁷

Still, other aspects of Québec’s forest governance institutions tended to favour waste over efficiency and the degradation of existing supplies, as opposed to the creation of more productive forests. The Montreal Board of Trade and Corn Association for instance, “repeatedly called attention to the great and needless waste that was continually going on, and have suggested the propriety of compulsory regulations to enforce economy in lumbering operations. The custom of levying dues upon logs by number, without reference to quality, naturally leads the lumbermen to select only the best leaving the poorer grades to rot in the woods. But if these dues were imposed on the basis of quality...collect[ed]...by an ad valorem rate on the timber sawed and exported,” then the province would have at least encouraged lumbermen to take out lesser quality timber, and thus help maintain more productive and healthy stocks to supply future needs.³³⁸ As Benjamin Hough (1880, p. 518) recognized in his second report on forestry to the United States Congress, one of the principal flaws of Canadian provincial forest institutions was (and remained well into the twentieth century) that they provided no remedial measure to foster the maintenance of public forest resource systems. Institutions were unidirectional and limited to defining entry conditions and payoff rules for resource appropriation activities – policy objectives that were consistent with the interest of a growing economy and the revenue needs of provincial governments, but not the achievement of sustainable resource use. The idea of limiting consumption to the actual reproductive capacity of forest systems (i.e., the interests and not the capital) was altogether inconsistent with the motives of either government or industry. Consequently, instead of investing resources to maintain or even enhance the productivity and long term viability of the province’s public forest assets, succeeding governments consistently found it

³³⁶ In 1879, the commissioner of Crown Lands in Ontario submitted the problem timber squaring to his counterpart in Quebec as part of an effort to develop a joint strategy. However, nothing was ever done to curb this wasteful practice (see Kirkwood, 1893, pp. 169-170).

³³⁷ Competition between the provinces to attract investors and private capital has historically been quite fierce and counter-productive to the mutual interests of the provinces themselves. Reference to the need to maintain timber dues and ground rents near, but just slightly below the fees charged by Ontario (Quebec’s chief competitor) is a recurring theme in the annual reports of Québec’s Commissioner of Crown Lands.

³³⁸ Statement referenced in Hough (1880, p. 453) Report on Forestry, Volume II.

in their interest to focus on the immediacy of short term (financial and political) returns. As one of the leading foresters of the day put it:

*"[T]he exigencies of the present are often an overwhelming superior argument as against the needs of the future. It takes...a high degree of farseeing statesmanship to so manage the affairs of the present that the future shall not suffer, and its needs be taken care of, especially in a government which is built on popularity, on direct support by the present day masses, the politician, be he ever so farseeing is bound to let the present day considerations weigh the most."*³³⁹

In economic terms, government and forest resource user groups simply discounted the interest of future generations for the benefit of immediate and nearly costless returns. This, at any rate, is what Errol Bouchette (1906, p. 251) and many others concluded in their assessment of public forest resource governance in Québec:

"Dame, ... l'avenir fera ce qu'il pourra...[P]our tout dire, nous vivons dans le présent et nous n'avons que faire des théoriciens et des rêveurs. Si vous savez concilier les réformes que vous prônez avec les besoins urgents, les intérêts divers et les droits acquis qui se coudoient, vous êtes assurément plus habile que nous et que tous nos devanciers."

Abundance has never been the mother of invention or that of change. In a context where government heavily indebted itself in the pursuit of politically motivated railways that largely benefited the political-economic elite at the expense of the provincial coffers and the public in general, the idea of restraining the use of forest resource assets was decidedly not in the interest of succeeding governments (Drummond, 1885, pp. 3-4; Gow, 1979, pp. 594-598; J. Hamelin and Roby, 1971, p. 130; Joly, 1878, p. 12). Revenue generation was the principal focus of the Crown Lands Department during the last quarter of the 19th century (Gow, 1979). As Drummond (1885, pp. 3-4) indicated at the time, in contrast to the healthy public finances of Ontario, which allowed it to make more sustainable choices,

"the province [of Quebec] has a very heavy funded debt, the interest of which, in addition to ordinary expenditure, has had to be provided for, and as a consequence every possible source of revenue has been made available to the utmost."

³³⁹ Fernow, B. E., 1909. What We Want, Tenth Annual Report of CFA. Toronto: Warwick Bros & Rutter, Ltd, p.74.

It is by no mere coincidence therefore, that Hough (1880, p. 518) should observe in his extensive study³⁴⁰ that:

"almost no attention has been given in Canada to the reproduction of timber upon lands from which it has once been cut off; but all the laws and regulations that have been established have reference only to the native forests of the country and to the securing of a revenue from the existing supply."

Building on initial set conditions of resource abundance, evidence suggests that the need for revenue ultimately conspired against the development of a more sustainable relationship between resource users and the systems upon which they depended. And in spite of diminishing resource stocks, the dynamics that were thus established and the power relations that resulted were never weakened by the ongoing pace of overexploitation. In a sense, the gradual disappearance of pine did not diminish the fact that the rest of the forest continued to grow more or less un-interrupted underneath it.

Though Québec was the only province to have instituted a diameter size restriction on pine following Confederation, such a policy did little to ensure the reproduction of pine or limit changes in the structure and composition of forest ecosystems (see Chapter VII). Admittedly, "*questions of conservation and restoration*" were, by the time Hough (*Ibid.*) submitted his report "*beginning to attract notice*."³⁴¹ But the idea of "conservation" was taken up in much the same way that "sustainable development" would later be instrumentalized to serve various political-economic ends. As for the concept of restoration, it was relegated to questionable voluntary measures that scarcely addressed the fundamental problem of overexploitation. In other words, by adapting the language of virtue and societal imperatives, conservation became an instrument of sound economic reasoning, limited to rhetorical applications that largely failed to link "ideas to deeds," as Vincent Ostrom (1997) would put it. The challenge, as Benjamin Hough (1880, p. 518) understood it, rested in

³⁴⁰ The second volume of Benjamin Franklin Hough's Report on Forestry (1880) arguably contains the most extensive critical study of the day, on the origins and development of Canadian provincial forest resource governance. His insights were widely referenced by Canadian analysts, politicians, and foresters in the decades that followed its initial publication.

³⁴¹ Joly (1878, pp. 16-18) was one of the first to discuss the issue of reforestation in Canada, including the development of incentives to compel landowners to plant trees, and criteria that could be used for restocking depleted forests such as return values on timber, the rate of growth, ease of reproduction, and comparative immunity from fire. He even discussed how lower valued but faster growing trees such as poplar could be used in a shelter wood strategy to quickly re-establish a forest cover that could then be used to grow higher valued timber, while providing early returns to farmers and land owners through selective logging. See also Brown, W. 1884. "The Scientific and Practical Arboriculture to Canada: Synopsis of a Paper read before the British Association for the Advancement of Science, Montreal, August, 1884." CIHM no. 04367

developing more “*effectual measures for [maintaining provincial forests], before vested rights have been established to embarrass, and before the need for these measures has become urgent.*” From a historical perspective, the extent to which Québec ever successfully heeded this warning is a question that cannot be answered in favourable terms.

To cite but one more example of the inherent weakness of forest resource institutions in Québec, as elsewhere in Canada during this crucial period, respondents to an 1878 inquiry by the Select Standing Committee on Immigration and Colonization observed that in relation to provincial forest institutions:

*“It is difficult to understand how some steps in [the] direction [of forest maintenance] have not been taken. In the Provinces of Ontario and Québec, the local governments derive a handsome revenue from the timber-lands, and yet they seem to regard their disappearance with perfect indifference.”*³⁴²

To amend this unsustainable if not irresponsible pattern of forest resource use, the provinces could:

“[Either] lease such lands for long terms, on condition of keeping up the supply, and restricting the cut according to the growth and species of timber on the limit, or ... resum[e] possession of those lands which have been cleared of their pine, and placing them under the charge of practical foresters, replace the pines by varieties that would repay the cost of culture... [While] the mere mention of forest-culture seems something far fetched and impracticable to Canadian ears,” ... [it] does not alter the fact that, of all descriptions of cultivation, it is the most profitable.”

Commenting on the position of provincial governments, one witness to the Inquiry conceded that such a long term policy, the advantage of which could “*scarcely be ... appreciated for one or two generations, ... is not likely to enlist the sympathy of politicians, but this very reason should decide a patriotic statesman to undertake it with*

³⁴² Cited in Hough (1880, p. 447).

determination.”³⁴³ However, *patriotic statesmen*, like benevolent despots, are rare, and even if such a breed existed, the absence of adequate constitutional safeguards meant that any effort to adopt a more sustainable course of action could always be overturned by future governments, with little or no regard to the actual intent of the original political artisans.

Collectively, the combined effects of the government's unwillingness to address the critical issue of forest resource maintenance and the ease with which lumbermen could obtain additional berths once they liquidated the limits they possessed resulted “in an industry [that was] notoriously migratory, ... drawing in new regions, moving mills back closer to supplies and leaving derelict, or semi-derelict, the cut-over regions” (Lower, 1938, p.139). In other words, the activities and behaviour of lumbermen were conditioned by the incentives they faced, and the structure of the situation that emerged from the fifty plus years of exchange in the timber trade. But whether the recurrent and growing resource problems that Québec confronted at the end of the 19th century could be addressed ultimately depended on the will of government, which in the Canadian parliamentary system is the sole custodian of collective-choice rights over public natural resource assets. Whether concerns related to the wasteful process of timber squaring or the problems generated by fire, settler encroachment, or over production, it remains that these and other related resource problems occurred within a political economic context, as Bates (1995) emphasizes, and structured through “rule-ordered relationships” that are “constitutive of the institutional facts” that affected not only the “rules of the game” but the very “play of the game” itself (V. Ostrom, 1997, pp. 26 & 58). As Joly's (1878) analysis seems to suggest, whether and how institutions were changed to address problematical situations depended not on the cost-benefit calculus of lumbermen but on the perceived trade-offs that political decision-makers faced. Because Pareto better rule arrangements are never “self-formulating, self-applying, or self-enforcing” (V. Ostrom, 1997, p. 138) efforts to understand and explain the nature of recurrent problems in Québec's forest

³⁴³ To this effect, the Montreal Board of Trade and Corn Association noted that “Government would deserve the praise of the future inhabitants of the country if they would originate a scheme for planting with young timber trees the immense wastes of the Province of Quebec. Such an investment would certainly not pay a dividend to this generation, but it would utilize what will only be a wilderness when the present trees are all cut, and would be a mine of wealth to those who possess it when the timber becomes large enough to be merchantable. By maintaining a judiciously matured system of planting, the supply might be prolonged indefinitely; as it is, the forests are denuded of all their valuable timber and comparatively nothing grows up to supply its place. A very large proportion of the country north of the Ottawa is not fit for farming, and never can be properly made fit for grain-growing or pasturage, but it is admirably suited for the growth of timber; and even a limited experiment would soon convince all as to the good results likely to accrue” (cited in Hough, 1880, p. 454).

sector must necessarily take into account the incompatible interests of government itself. In this sense, the ultimate source of failure is unlikely to have emerged from the pressure exerted by markets or the much-touted short-term interests of the lumberers themselves. Rather, probable answers are to be found in the system of social order that allowed governments and lumberers alike to pursue self-regarding strategies at the expense of long term social, ecological and economic outcomes – whether these be derived from their own motives or the influence of other more powerful interests.

The fundamental recognition that decisions on the use of public lands and forests had long term consequences for the province led a group of elected representatives (under the leadership of Joly) to pass a motion in 1873 in favour of adding a standing committee on woods and forests to the permanent standing committees already named by the house.³⁴⁴ Unfortunately, the motion was withdrawn with no further explanation and such issues remained the exclusive franchise of the executive until forests and natural resources more broadly were added to the roster of standing committees in the 1970s.

6.3.1 Responding to the Criticism: Productivity Through Conservation

As the province began to recover from the economic crisis of the late 1870s,³⁴⁵ the idea of forest conservation had gained widespread appeal amongst lumbermen and politicians. The works of Benjamin F. Hough were widely read and cited,³⁴⁶ and the contributions of Henri G. Joly³⁴⁷ exercised a strong influence over E.J. Flynn and W.W. Lynch who served as Commissioners of Crown Lands between 1880-82 and 1882-87 respectively.³⁴⁸ Admittedly, conservation, like sustainable development in the late twentieth century, was a broadly used and abused ideal. It had become the operative word to describe sound resource management policies after Confederation but most of the changes introduced under the guise of “*forest conservation*” had little or no effect on (or relationship to) the actual conservation of the province’s forests. Though forest conservation was generally understood to mean both

³⁴⁴ JLAQ, 1873-74, Vol. 7, p. 35

³⁴⁵ In August 1880, the Crown Lands Department recorded its largest and most profitable sale ever, when 3,243 square miles of timber limits were auctioned off for \$261,182 in bonuses (equal to \$80.54 per square mile). See RCCL, 1880, p. v

³⁴⁶ For example, see RCCL, 1881.

³⁴⁷ Joly was Quebec’s fourth Premier between 1878-1879, and leader of the official Opposition until 1883.

³⁴⁸ Flynn and Lynch were both former members of the Liberal party who defected to the Conservative party in 1879, in opposition to Joly’s effort to rid the province of the Legislative Council. On Joly’s influence over the conservation movement and Commissioners of Crown Lands, see W. Little (1890); on the issue of shifting political allegiances, see Hamelin and Roby (1971).

reductions in the level of appropriation and investments in related maintenance activities, the politically espoused (and economically valued) definition that evolved in Québec invariably centred on fire prevention, restrained settlement, and the creation of forest reserves. No comparable commitment was ever made to reduce the forest sector's aggregate demand on public resources, change wasteful practices (e.g., timber squaring), or impose user contributions towards the maintenance of resource system productivity. In a context where the vast majority of the province's expendable revenue came from its natural resources, the incentive to restrain demand on public forests (and returns to the public coffer) was decidedly limited. Anything that would have negatively affected resource appropriation trends or interfered with the expansion of the forest sector was expressly avoided.

Nevertheless, the reprise of economic activity and the speed with which government sold some of the largest timber concessions³⁴⁹ ever ultimately forced Commissioner Flynn to recognize that since "*the value*" of the province's "*woods and forests must increase year by year, ...the greatest care and prudence should be exercised in the sale of our timber lands.*"³⁵⁰ Flynn passed an order in council in November 1880 (No. 39 – see table below) that raised timber dues on pine and spruce logs slightly before changing the system altogether on April 7th, 1881 (order in council no. 15) to lineal board measures in order to make "*the tariff more proportionate and equitable*" (see Table 6.1 below).³⁵¹ The changes had a near immediate crown timber revenue, which rose from \$303,950 in 1880 to \$567,815 in 1882.

However, in spite of the seemingly robust economic resurgence, a general "*feeling of insecurity*" had "*sprung up amongst banking corporations and holders of licenses with regard to the....character of the tenure by which they [held] their licenses to cut timber.*"³⁵² At issue was the fact that no provision had yet been made to explain what would happen after April 1889, when annually renewable timber limits were scheduled to expire. To defend their case before the Chapleau government in 1880, the Timber Limit Holders Association of Québec turned to long time judge and conservative member of the provincial Assembly,

³⁴⁹ Nearly 4,000 square miles of timber limits were sold between 1880 (3,243 square miles) and 1881 (715 square miles). See RCCL for 1881 and 1882.

³⁵⁰ RCCL, 1882, pp. v-vi

³⁵¹ RCCL, 1880, p. v

³⁵² Church, Ruggles L. (1880) "Report of argument submitted to the honorable the Executive Council for the province of Quebec on presentation of a memorial respecting the vested rights of limit holders in their limits" [microform], CIHM no. 03048.

Ruggles Church. Addressing his concerns directly to the members of the Executive Council, because it alone had authority to make an “*an explicit declaration*”³⁵³ of the rights of lumbermen that would have the force of law, Church reminded members of the executive of the important common law principle of *precedents*, which ultimately provides some assurance against the usurpation of power, the pursuit of illegal doings, or the adoption of rules and policies that would be contrary to judicially acknowledged principles such as the rights of citizens:

*“No statute alone can provide for the administration of the Crown Domain: the exercise of the sovereign power which is given to the executive under our system must be coordinated to that dominant idea of progressive development which the subject has a right to expect will be observed in matters of great public policy.”*³⁵⁴

Table 6.1 Variation in Timber Dues From 1866 to 1888

| ORDERS-IN-COUNCIL | 13 JUN. 1866 | 21 JUL. 1868 & 27 FEB. 1874 | 12 NOV. 1880 (NO. 39) | 7 AP. 1881 (NO. 15) | 6 OCT. 1887 / 3 FEB. 1888 ¹ |
|--|--------------|--------------------------------|--------------------------|-------------------------|---|
| Ground rent / square mile | 50 ¢ | \$2.00 | \$2.00 | \$2.00 | \$3.00 ² |
| Pine logs (13'.5") > 17" least diameter (each) | 10 ¢ | 15 ¢ | 22 ¢ | \$1.30/mille ft.B.M. | Idem |
| Pine logs (13'.5") < 17" least diameter (each) | | 10 ¢ | 11 ¢ | | |
| Spruce logs 13'.5" (each) | 4 ¢ | 5 ¢ | 5.5 ¢ | 65 ¢/mille ft.B.M. | Idem |
| Oak & walnut (ft ³) | 2.5 ¢ | 3 ¢ | 3 ¢ | 3 ¢ | 4 ¢ |
| Elm, ash and tamarack (ft ³) | 1 ¾ ¢ | 2 ¢ | 2 ¢ | 2 ¢ | 2 ¢ |
| Pine, birch, basswood, cedar, spruce (ft ³) | ¾ ¢ | 1 ¼ ¢ | 1 ¼ ¢ | 1 ¼ ¢ | 2 ¢ |
| Cord (hard) wood ³ (128 ft ³) | 13 ¼ ¢ | 16 ¢ | 16 ¢ | 16 ¢ | 20 ¢ |
| Cord (soft) wood ⁴ (128 ft ³) | 6 ¾ ¢ | 8 ¢ | 8 ¢ | 8 ¢ | 10 ¢ |

1. Dues to be maintained until 1900, government reserving right to alter table giving the contents in board measure of sawlogs whenever expedient (24 April 1888, order no. 249).

2. Ground rent increased to \$5.00 per square mile (7 April 1887, no. 160), before being reduced to \$3.00 on 6 October 1887 (order no. 505) due to strong opposition from lumberers. Rents were payable in cash on or before 1st September of each year.

3. Strong demand for white birch for cabinet work and spools incited government to increase duties from 16¢/cord to 30¢ on 25 November, 1882 (order no. 43), before lowering it to 20 ¢ on 3 March, 1884 (order no. 100), due to strong protest.

4. Pulp wood, as well as small logs (less than 10 feet in length and 10 inches in diameter at small end) set at 25 ¢/cord. A cord of 128 ft³ is equal to 600 feet B.M.

³⁵³ *Ibid*, p.30.

³⁵⁴ *Ibid*, p.29.

While Church failed to sway a favourable response from premier Chapleau on the tenure issue, he did manage to obtain an ordinance that reduced the bonus on limit transfers from \$8.00 to \$1.00 (10 July, 1880) to, as he put it, "*ease the burden of favourable exchanges amongst lumberers*." But according to the Monetary Times, what kept government in check, was not the supposedly close connection between cabinet and the forest sector, but the "*assistance*" of the Legislative Council.³⁵⁵ As Gow (1979) and Orban (1969) point out, the Legislative Council played a key role in supporting the business interests of Quebec's commercial class until the end of the 19th century, using its veto privilege to strike down any legislative decision that did not concur with private sector interests. From 1900 onwards, the Legislative Council assumed a much more subdued if not effaced role.

Hence, Church's testimony and the government's subdued reaction nevertheless provide another compelling example of the awkward relationship that existed between public officials and the forest sector up until the end of the nineteenth century. As discussed in Chapter V, relationships between the two sub-groups were, in all likelihood, not as close as what previous scholars have tended to emphasize (e.g., Gaudreau, 1999; Gillis and Roach, 1986; J. Hamelin and Roby, 1971; M. Hamelin, 1974; Howlett and Rayner, 2001; Lower, 1938, 1973; Malenfant, 1987). Compared to other provinces, relationships between the political and commercial classes in Québec were principally divided along linguistic lines. Whereas economic interests in Québec was under the control of the English-speaking minority, politics had become the domain of the upper-middle class French-speaking elite, after the Constitution Act of 1791 allowed for the creation of an elective lower house. Consequently, if provincial forest institutions appeared to favour lumbermen over settlers, at any given point in time, it was either because such positions were favoured by the dominant political interests of the day, or because the commercial class had actually succeeded in its efforts to convince elected (i.e., members of the Assembly and the executive in particular) and/or appointed (i.e., the Legislative Council) members of parliament. The failed attempt of the Limit Holders Association to obtain more favourable conditions from the provincial government provides a convincing case in point. The Limit Holders Association was by far the most powerful lobby group to have ever been organized to secure the interests of the

³⁵⁵ The Monetary Times, June 16, 1882, Vol. 15, No. 51, p.1544.

forest sector.³⁵⁶ Yet, the fact that not even the full weight of all the leading lumbermen and financial institutions of the province could deliver a more favourable response from the executive shows just how much the ties between Government and Industry had yet to congeal.

6.3.2 The First Forest Reserves

The fortunes of lumberers became more promising in August 1882 when Montreal played host to the annual meeting of the American Forestry Congress, at the request of father and son lumberers and conservation activists James and William Little. The newly appointed Commissioner of Crown Lands, William W. Lynch, was deeply impressed by the proceedings of the Congress and vowed to pursue some of the key recommendations that were then made for conserving forest resources³⁵⁷ – ideas that were already well acknowledged by his predecessors (e.g., Vankoughnet, 1858-1862; Campbell, 1864-1866; Beaubien, 1867-1872). To support conservation efforts, Lynch proposed to map out the nature of the soils across the province in a bid to categorize land rights for either agricultural or forestal (i.e., permanent forest reserves) purposes; and to limit the occurrence of forest fires due to “*negligence, accident or malice*.”³⁵⁸ In doing so, Lynch laid the ground work for what was to become Québec’s policy on forest conservation for the next four decades – a policy that essentially centred on three basic strategies: create large forest reserves (i.e., supply guarantees), limit the risk of fire, and control the reach of settlement. In order to protect the province’s forests, it was therefore decided:

“that no township [should] be laid out in farm lots before it be proved to contain soil fit for cultivation; and that no wooded region be subdivided in which the land cannot profitably be devoted to agriculture; and to neutralise those so so-called colonization movements who’s real object is the pillaging of our forests.”

In other words, instead of taking a closer look at how government was selling off the province’s resource assets as quickly as markets allowed and the wasteful tendencies of

³⁵⁶ The Limit Holders Association was created to “*secure the united action of all who were interested in the tenure of limits, for the protection of their rights...and for mutual assistance in promoting [their joint] interests*.” In addition to all the major lumbering interests of the day, it included the directors of such prominent financial institutions as the Bank of Montreal, the Molsons’ Bank, the Bank of British North America, the Merchants’ bank, the Quebec Bank, and La Banque Nationale. See *The Monetary Times*, June 16, 1882, Vol. 15, No. 51, p.1544.

³⁵⁷ DLQ, 1883, p.318-321

³⁵⁸ RCCL 1882, p. vi

lumber merchants themselves,³⁵⁹ the Commissioner tossed the blame of dwindling forest stocks onto settlers, failing himself to recognize that the “*so-called colonization movement*” was in fact created by, and maintained through the legislative action of the province.³⁶⁰ While Lynch acknowledged the need to maintain the productivity of forest resource systems, and to reforest the “*immense wastes*” of the province, these preoccupations were principally left to voluntary measures applicable to settlers only,³⁶¹ as if to suggest that the inhabitants of the province were somehow culpable of the overexploitation of public forests. Whether and how lumbermen could be induced to adopt more sustainable patterns of forest resource use were again obviated from the Commissioner’s reflections. The “*iron rule... [that] converts everything into cash,*” as Joly (1880, p. 3) put it, effectively limited the government’s ability to see beyond its own self-interest. While Joly (1882, p. 10) rightly understood that the “*lives of governments*” are too short to sustain the long term perspective that forest restoration and maintenance require, what he and most of his contemporaries and successors failed to comprehend was that choice need not be limited to the vagaries of succeeding governments, and what ever policy temporary politicians may be persuaded to follow (Buchanan, [1981] 2001, p. 46). In other words, what made it difficult for governments to pursue long-term investment strategies with any degree of consistency was not the differing incentives and prerogatives that succeeding governments faced, but the utter absence of adequate constitutional safeguards or mechanisms to direct the actions and decisions of government toward clear normative ends.

Talks with key lumbermen of the day were nevertheless initiated to set-up a “*system of superintendence sufficiently efficacious to justify expenses*” and within a few months, Lynch

³⁵⁹ On this note, Quebec’s first Commissioner of Crown Lands, the Hon. Beaubien reminded his colleague in the debates of the legislature that the wasteful lumbering practices of the day were as harmful to the long-term maintenance of forest resources as were fire and land clearing by settlers. See *Débats de la Législature de Québec*, 1883, p. 320.

³⁶⁰ RCCL 1882, p. vi. The right to establish colonization societies in each electoral division was granted in 1869 (32 Vict. Cap. 14) to promote the establishment of settlers and emigrants on crown lands by opening roads, assist in clearing and sowing land, and provide information relevant to agriculture. While such societies provided a cost-effective mechanism to ensure an organized approach to the settlement of province’s ungranted lands, their creation also provided the Church and French nationalists with a new forum for their emancipation and eventual contestation of the province’s forest governance institutions, along with the quasi monopoly that lumbermen exercised over the public domain. Despite being a creation of government, the colonization movement was often blamed for the ailments of the industry.

³⁶¹ Influenced by the contributions of Joly (1878, 1880, 1882), the Government of Quebec, in partnership with the Forestry Association of the province, established by special proclamation a holiday to improve the value of trees among rural inhabitants (as per an Act to encourage the planting of trees – 1882 Vict. 45, Cap. 13). “*Celebrations*” were exclusively directed at “*municipal, religious and school corporations.*” No comparable effort was made to bring awareness to the lumberers. See Chapais, J.C., 1885. “*Arbor day programme for its celebration in the year 1885 and advice on the planting and sowing of forest trees.*” [Microform], CIHM no. 12007, Published in Québec.

was able to obtain legislative enactments for the creation of fire districts (1883 Vict. 46, c. 10) and forests reserves (1883 Vict. 46, c. 9) throughout the province. Because Québec's forests represented such an "*important a source of revenue*" for the province, every available means had to be adopted "*to prolong its existence to an indefinite period.*" In essence, Lynch believed that forests in Québec "*have not to be created, they only have to be preserved*" from disastrous fires, and the carelessness of settlers.³⁶² To support the government's new policy and provide more effectual meaning to its legislation, a string of orders-in-council were adopted to establish forest reserves and fire districts across much of the Ottawa, St. Maurice, Saguenay, and Lower St. Lawrence regions. Nearly all the unsold territories of the province were thus defined as fire districts,³⁶³ which essentially prevented anyone from setting or causing to be set any fire in or near designated areas between April and October inclusively (except for cooking, heating, and industrial purposes, or for clearing land, in which case limitations applied to July and August only). Forest reserves,³⁶⁴ on the other hand, were created to exclude well-timbered areas from the possibility of settlement for at least ten years, and not before the "*Lieutenant-Governor in council*" determined that such territories "*may with advantage be opened for settlement*" (1883, 46 V., c. 9, s. 1). In essence, the forest reserve clause of 1883 more or less reiterated what had existed in the books since 1868 (i.e., the Public Lands Act, 32 V., c. 11, s. 10, art. 3),³⁶⁵ but never applied because "the idea that vast tracts of land should be withheld from the people" was a sure path to electoral defeat (Lower, 1936, p. 63).

Hence, even though proposed changes were broadly appreciated by the forest sector and conservationists in particular (see Little, 1890),³⁶⁶ they were denounced by the province's colonization movement, which saw in these measures the confirmation of the government's

³⁶² RCCL, 1883, p.vii

³⁶³ Fire districts were created in all unsold territory of the province (14 May 1883, order no. 14).

³⁶⁴ Forest reserves were established in the Upper and Lower Ottawa agencies (10 September 1883, order no. 30); in the counties of Compton, Beauce, Dorchester, Wolfe, Arthabaska and Megantic (9 January 1884, order no.6); and in the St. Maurice region (10 January 1884, order no.7).

³⁶⁵ The right of the Lieutenant-Governor in council to set aside portions of vacant public lands as forests, to serve for the production and culture of timber was reinstated under 39 Vict., c. 11 (1875).

³⁶⁶ In his illustrated guide to silviculture, J.C. Chapais stressed the need for forest reserves as the line of defence against the wasteful deforestation by settlers and imprudent overexploitation by lumbermen: "*Depuis longtemps déjà, les économistes et les agronomes pratiques de notre province se sont émus à la vue des dilapidations dont nos belles forêts sont l'objet... les marchands de bois qui achètent des limites des gouvernements s'appliquent à retirer le plus de bois possible de ces limites, sans s'inquiéter de l'avenir.*" To correct the situation, "*La première chose que nous avons à faire est donc de prendre les moyens de conserver intact, là où il l'est encore possible, et de rétablir autant que possible, dans son intégrité primitive, le domaine boisé qui nous reste.*" See Chapais, J.C. 1883. Guide Illustré du Sylviculteur Canadien. Eusèbe Sénécal et Fils : Montréal. CIHM no. 00560, pp. 7 & 27.

bias towards lumbering interests (Buies, 1889, pp. 23-24). For in their view, the ten-year freeze on newly assigned forest reserves effectively meant that the progress of colonization would be arrested for a decade or more in designated areas. In the political struggle to control the levers of power, the forest reserve act, as refurbished in 1883, was unlikely to pass the test of time.

After a few years of strong economic growth, lumberers faced yet another spell of sharp declines. As in the past, overconfidence in prevailing market conditions led to overproduction, which in turn brought about a general decline in productivity and diminishing returns for the state. But during these final years of the conservative government's hold on power, what preoccupied Commissioner Lynch, more than the "*depressed condition of the timber trade*," was the realization that the information his Department relied upon to make land use decisions was in fact "*very uncertain and almost useless*."³⁶⁷ If government was to make better use of available resources, it needed to have a better idea of what resources it disposed of.³⁶⁸

6.3.3 The Struggle for Resource Rights

For the colonization movement, the idea that government did not have a clear grasp of the nature of the lands held under public ownership was not a rhetorical question but an empirical reality. In the opinion of most colonization advocates, the Forest Reserve Act only helped to confirm their belief that government was controlled by the forest lobby (Buies, 1889, p. 23).³⁶⁹ While the forest sector provided crucial employment opportunities during the long winter months, labour conditions in the backwoods of the province were anything but enviable. Legislation, such as the Master and Servants Act (1870, Vict. 33, c. 20), gave the 'timber barons' and 'lumber lords' of the day Leviathan-like powers over the men operating in their camps, thus granting them the authority to discharge anyone in their employ without compensation or due process. As stipulated by the said Act, anyone neglecting to enter the

³⁶⁷ RCCL, 1885, p.vii

³⁶⁸ Since the time of Cauchon (1852-1856), the idea of developing detailed surveys of the public domain to assign land use rights according to the arable qualities of the soil has been a constant goal of succeeding commissioners. The recurrent theme of flawed or inadequate surveys suggests that the Department's ability to deal with issues such as trespass was at best weak.

³⁶⁹ Buies (1889, p. 23): « la législation n'a cessé de favoriser le marchand de bois au détriment du défricheur ; elle s'est accentuée dans ce sens à chaque période, jusqu'en 1883, époque où l'on combla la mesure par la création de ces " réserves " qui étouffaient graduellement la colonisation, mettaient la corde au cou du colon et en présentaient le bout au commerçant de bois, qui n'avait aucun scrupule de tirer dessus, quand ses intérêts, le temps, les lieux, les circonstances le permettaient. »

service of "his master," at the time agreed upon, or who was found guilty of "ill-behaviour, refractory conduct or idleness, of deserting from his service or duties, or of absenting himself by day or by night without ...leave or ...refuses to perform his duties or obey the lawful commands [of his master] [was] liable upon conviction of a penalty not exceeding twenty dollars or two calendar months of imprisonment for each offense committed." When combined with the limited availability of arable lands, forest policies that favoured large capital holders over small operators, uncertainty over land rights, and the absence of affordable and equitable arbitration, the situation created by the government's land policies encouraged thousands of poor households to migrate to the more prosperous factory towns of New England in search of work and better living arrangements (Buies, 1889, p. 24).

Change however, was on the horizon. The controversial execution of French Métis leader Louis Riel in November 1885 by the federal conservative government helped galvanize public opinion in Québec against its own conservative government. Taking advantage of the growing nationalist sentiment, Honoré Mercier, along with fellow dissidents from the Liberal and Conservative created the "Parti National." After a successful campaign against the provincial conservatives in 1886, Mercier was appointed premier of Québec in January 1887, thus becoming the first truly nationalist political leader in the province. As the new head of cabinet, Mercier took advantage of his position to alter existing forest legislation to suit the interests of his political base, which largely consisted of the Catholic Church, and the rural inhabitants of the province.³⁷⁰ Although the extent to which Mercier actually succeeded in recalibrating provincial legislation in favour of the colonization movement is debatable, his style was unique and his influence over federal-provincial relations continues to affect public policy to this very day.³⁷¹ His government was not merely the government of the Parti National, it was the *Mercier Government*, and whatever policies the different branches of his administration adopted, such policies or legislation ultimately bore his name.

³⁷⁰ Mercier created the Department of Agriculture and Colonization, thus severing ties with the Crown Lands Department, naming himself as the head of the new department, and the popular cleric Father Antoine Labelle as his Deputy Minister. However, the relationship quickly soured once it became evident that Mercier had no real intention of changing crown timber policies in favour of the colonization movement (Dussault, 1983).

³⁷¹ As the first true champion of provincial sovereignty, Honoré Mercier (1887-1891) is credited with introducing the concept of interprovincial conferences. He led provincial demands for greater political autonomy and authority as well as increased federal transfers to the provinces; protested the federal government's right to disallow provincial laws; and called for the removal of Quebec's legislative council, among many other things. See Rumilly (1975) and Hamelin et Roby (1971).

To redress the province's finances and exact greater control over the forest sector, Mercier appointed George Duhamel as Commissioner of Crown Lands in 1888. Duhamel wasted no time in investigating the operational and legislative workings of his Department, and less than a few months after taking office, he boldly announced that the province lost "*at least one hundred thousand dollars due to the inaccuracy of, and lack of control over the returns of certain lumber-merchants.*"³⁷² The problem, as explained by Duhamel, was that in spite of an obligation to declare upon oath the quantity and quality of timber taken from public lands, the cullers hired by lumbermen simply followed the time honoured practice of underestimating the size of harvested logs and/or the number of pieces produced.³⁷³ To prevent such abuses, Duhamel reinforced the Department's authority to access and examine all relevant records from lumbering operations and further imposed the obligation to count and measure all appropriated timber in the field rather than at the moment of sale.³⁷⁴ The regulatory changes had a near immediate effect on crown revenues, which rose from \$598,663 in 1888 to \$958,038 in 1889. This was followed in 1890 by the Québec Cullers' Act (54 Vict., c. 14), which reinstated the obligatory evaluation of culler competencies before an independent board of examiners. The revisions required all logging camps, mills or related processing facilities to hire only licensed cullers to keep track of production.³⁷⁵ The policy would undoubtedly have proven beneficial, had the cullers been made independent of their employers but as the law stood, they were placed under the payroll of limit holders and the incentives to retain the interests of their employers in the conduct of their office is as obvious today as it undoubtedly was then.

To reinforce the Crown Lands Department's capacity to monitor lumbering activities, enforce the payment of crown dues, prevent fraud, and generally increase the revenues exacted from the forest sector,³⁷⁶ the Mercier Government undertook the revision of timber

³⁷² RCCL, 1888, p. vi

³⁷³ See "Forest Rangers," Sessional Papers, No. 114, Part 3, Vol. 22, 1889, pp. 4-5

³⁷⁴ *Ibid.*

³⁷⁵ The licensing of cullers could only be performed by a duly appointed board of examiners under the Statutes of the Province of Canada. See Section 8 of Consolidated Statutes of Canada (1859, 22 Vict., c.46).

³⁷⁶ In a speech delivered 10 April 1888, Mercier states that the object of the Crown Land reforms were principally directed at increasing revenues generated by the forest sector: "*nous nous sommes principalement occupés de l'augmentation du revenu – augmenter les rentes foncières et droits de coupes / organisé un système d'inspection qui nous permettra d'empêcher les fraudes*" (Pelland, 1890, p. 542).

regulations through several different instruments.³⁷⁷ By order-in-council (no. 50, February 3rd, 1888), Duhamel mostly reaffirmed existing regulations such as the rights of licentiates to pledge their limits as a security to obtain advances for carrying out operations with no obligation to remit a transfer bonus (Section 10). Consequently, if the debtor failed to perform his obligations, the only recourse given to the creditor was that it would have priority over subsequent renewals, as long as the transfer bonus of \$1.00 per square mile was paid in full. To exact greater control over crown timber dues, foremen in the logging camps were again reminded of their obligation to furnish sworn statements of the number and description of all manufactured wood products, along with a corroborating affidavit from the license holder or his representative (Section 12). Each shanty was required to keep a logbook or record of articles produced (Sections 13 and 15) and forest rangers held the right to inspect, count, and measure all manufactured timber (Section 17). The commissioner reserved the right to revise the schedule used to calculate the board-feet contents of logs, as well as appoint qualified officers to sawmills to ascertain actual production (Section 18). The revised rules placed an additional diameter restriction of nine inches at the stump on all merchantable trees other than pine, which remained at twelve inches (Section 33). Finally, to ease tensions regarding the fate of timber limits after the expiry of existing licenses on April 30, 1889, and facilitate the procurement of advances from banks and financial institutions, an order-in-council (no. 230) issued on 17 April, 1888, gave limit holders the right to annually renew their licenses under the revised rules until September 1st, 1900. Government reserved the right to modify or increase timber dues as necessary.

More significantly however, it was the repeal of the 1883 Act establishing forest reserves, and all related orders-in-council that received most of the attention at the time.³⁷⁸ Through section 4 of Act 52-53 Vict., c. 15 (1888),³⁷⁹ Mercier overturned pre-existing legislation, replacing it with a twenty per cent reserve on all lots sold for settlement

³⁷⁷ See The Revised Statutes of the Province of Quebec, promulgated and published in virtue of the Acts 50 Vict., c. 5 (1887) and 51-52 Vict., c. 2 (1888).

³⁷⁸ For a detailed, albeit partisan, account of the repeal of the Forest Reserve Act, see "*Politique provinciale : Discours prononcés par l'hon. M. Lomer Gouin, Ministre de la Colonisation et des Travaux Publics, à l'Assemblée Législative de Québec, Session de 1904.*" Available at [<http://archive.org/details/politiqueprovinc00gouiuoft>]

³⁷⁹ See articles 1339 to 1343 of the Revised Statutes (1888) 51-52 Victoria, Chapter 15.

purposes.³⁸⁰ To prevent the problematic situation encountered in the treeless landscape of older settlements, a mandatory twenty per cent forest reserve on all newly sold lots was established in favour of the settler who retained the "*perpetual usufructuary [rights] of such land,*" including the right to cut and use timber for private consumption in accordance with any regulation the Lieutenant-Governor in council may deem fit to apply. As for trees removed in the process of clearing land, and sold for a profit, settlers were required to pay crown dues on all merchantable trees (i.e., white and red pine, spruce, tamarack, black and white birch, and ash) and apply their earnings towards any remaining balance (capital and interest) of the lot so acquired (Section 8). More controversially however, government maintained rights over any revenue collected in excess of the purchase price and lots issued in areas under licensed occupation gave the licentiate thirty months to remove all merchantable timber, except for that part on which the settler was engaged in clearing land to fulfil his settlement duties, and to the further extent of ten acres (Article 1343 of the Revised Statutes). In other words, settlers were given limited withdrawal rights in favour of the land purchase and to meet settlement or household requirements. On the other hand, government retained residual rights on all crown timber and the authority to determine where the twenty per cent should be located and how it ought to be managed.

Repeal of the forest reserve act helped reaffirm the rights of settlers to the ungranted territories of the province, but it did so at the cost of a slightly less beneficial title than what previous legislation provided for. Prior arrangements limited the rights of lumbermen to pine only (1882, 45 Vict., c. 10), but the new rules entitled license holders to take all merchantable stocks (see above). Lumbermen also gained an extended grace period to remove timber from lots under location tickets (from the previous twelve months to thirty months), and all profits incurred through the sale of timber from a lot appropriated for settlement purposes now belonged to the Crown, including any surplus over and above the purchase price. Consequently, even though the revised regulations were greeted with much fanfare and optimism by the defenders of the colonization movement (Buies, 1889, p. 91), settlers merely acquired the right to push settlement further onto the marginal lands and backwoods of the

³⁸⁰ Fire districts were also reorganized to maintain coherence with amended statutes. By virtue of Act 52 V., c. 44, fire districts designated by Order no. 174 (16 April 1889) for the territories watered by the Ottawa and Rouge Rivers, by order no. 254 (22 May 1889) for the St-Maurice and Lower Ottawa portions, and additional designations made on 28 June 1889 for Saguenay, Gaspé, Bonaventure, Kamouraska, and St-Francis.

province. As for lumbermen, their situation was similar to the conditions that prevailed prior to the enactment of forest reserves, except that now, their rights over all timber under licence was nearly exclusive and made secure by the thirty month clause. More fundamentally however, the revisions endorsed by Mercier's government ultimately helped set the stage for renewed confrontations between lumberers and settlers.

A year after implementing the new regulatory scheme (i.e., 1889), revenues rose by 38%, thanks to a substantial increase in the production of pine (from 329,518,600 to 467,751,800 feet board measure) and spruce saw logs (from 76,361,000 to 129,586,400 feet board measure), as well as an increase in squared timber from 521,112 to 604,768 cubic feet.³⁸¹ Whether or not the increase in declared quantities of manufactured timber and lumber can be attributed to the renewed vigilance of the Crown Lands Department is impossible to tell,³⁸² but after the unprecedented returns of \$958,938 in 1889, revenues steadily decrease to \$806,051 in 1890 and \$646,237 in 1891, despite near record production in squared pine (increase from 604,768 ft³ in 1889 to 3,145,687 ft³ in 1891), hard wood timber (increase from 55,431 ft³ in 1889 to 2,955,799 ft³ in 1891) and spruce logs (increase from 129,586,400 to 188,517,400 feet board measure).³⁸³ The reasons for this, as Treasurer Joseph Shehyn explained³⁸⁴ stemmed from renewed "*stagnation and depression in the timber trade*" arising from "*the sudden fall in price of square timber, the overstocking of the market...[in Europe], import duties imposed by the United States on sawn lumber, and the failure of important houses which threw back...immense quantities of woods of all kinds sold and unpaid for.*" In short, unfavourable market conditions combined with overproduction to depreciate the value and "*sale of stocks on hand and the... collection of timber dues and other large sums owing to the Department.*"

³⁸¹ See Comparative statement of timber manufactured since 1867, Appendix No. 14, Sessional Paper No. 8, Report of the Department of Lands, Forests and Fisheries ending June 1901, Sessional Papers 1901, Part 1.

³⁸² Revisions to the Cullers Act were only carried forth in 1890 (see text above).

³⁸³ Report of the Department of Lands, Forests and Fisheries ending June 1901, Sessional Papers 1901, Part 1. Pine saw log production decreased slightly during this period from 467,751,800 to 310,508,200 feet board measure.

³⁸⁴ See "Budget Speech delivered by Hon. Joseph Shehyn, Treasurer of the Province to the Legislative Assembly, December 9th, 1890," CIHM no. 13417, p.10.

Regardless of their own past policies, the Conservative members of the opposition wasted no time in challenging the credibility of Mercier's colonization agenda.³⁸⁵ As it was then argued, the Conservatives charged that Mercier created a twenty percent reserve in favour of the Crown on land sold for settlement purposes, and a thirty month reserve in favour of timber merchants in the case of previously licensed areas.³⁸⁶ For Mercier however, the benefits of the new system were clear. When opposition charged that the thirty-month reserve was nothing short of an unrestricted grant to lumbermen ("*un pur don que le gouvernement fait aux marchands de bois au grand détriment de la colonisation*"), Mercier countered that lumbermen had acquired certain rights through the Conservative's forest reserve scheme, which his government had to honour.³⁸⁷ Moreover, removal of the thirty-month clause, he added, would inevitably mean the loss of some \$200,000 in additional revenues, which the province needed in order to redress the woeful state of public finances that was brought about by twenty years of Conservative rule. While Lomer Gouin would later argue that the thirty-month clause was forced upon Mercier by the Conservative-led Legislative Council, members of the opposition contradicted this version of events³⁸⁸ and in fact, the said Council had even called for the removal of the 30 month clause altogether.³⁸⁹ Following Rumilly (1940, pp. 258-266) however, the idea that the 1888 regulatory revisions were likely hammered out through ongoing negotiations between Mercier's cabinet and the Limit Holders Association of Québec is probably closer to reality.³⁹⁰ When combined with the fact that Mercier's initial term in office was the first ever coalition government in the province's short history (after Confederation), the incentive to compromise was undoubtedly high. Moreover, the revised regulations were not in anyway discordant with the views of the Mercier Government, as expressed by the Treasurer of the Province, Joseph Shehyn in his budget speeches for the years 1887 and 1888.³⁹¹ Similarly, Gouin's argument that the

³⁸⁵ For example, see Picard, M.J. 1890. *Discours prononcé à l'Assemblée Législative de Québec le 27 Février 1890 sur le Bill Relatif à la coupe du bois marchand*. [microform], CIHM no. 04795; *Débats de la législature de Québec*, Vol. I, pp. 127-141

³⁸⁶ Picard, 1890, pp. 26-27.

³⁸⁷ *Ibid.*, p. 27

³⁸⁸ See pages 49-50 in Lomer Gouin, "Politique Provinciale" (see footnote above). Available evidence makes it nearly impossible to find out who was right, but political interference by the Legislative Council remained problematical until the end of the 19th century, before lapsing into near complete silence until 1968, when the upper house was finally terminated (Orban, 1969).

³⁸⁹ JLCQ, Vol. XXII, 1888, p. 265.

³⁹⁰ R. Rumilly, 1940. *Histoire de la Province de Québec*. Vol.5, pp. 258-266.

³⁹¹ See Budget Speech Delivered by Hon. Joseph Shehyn, Treasurer of the Province, in the Legislative Assembly of Quebec, dated 12 April 1887, pp. 38-39 and 14th June, 1888, pp. 44-45. Shehyn noted the need to exercise greater control over, and exact more revenue from the forest sector.

Legislative Council was to blame for amending crown timber regulations in favour of lumbermen further fails to account for the subsequent repeal of nearly every constraint on the actions of settlers in 1892 (under a Conservative administration), and the eventual reinstatement of forest reserves by his own government in 1904. A more reliable interpretation of events during the last two decades of the nineteenth century would suggest that whoever held the reigns of government tended to pursue institutional amendments that supported their political beliefs, but changes were acted upon with reference to the broader electorate and the existing distribution of rights and benefits. In brief, the vote motive loomed high in late nineteenth century Québec politics.

Regardless of the debates that were triggered by Mercier's decisions, the practical implications of his natural resource policies never materialised, for the Premier was dismissed from his functions by the Lieutenant-Governor in December 1891 over allegations of corruption.³⁹² Early elections were called to deal with the crisis and by March 1892, the Conservatives swept the majority of the seats in the legislature. Less than three months after resuming power, the province's forest institutions were again changed to suit the interests and motives of the new government. The twenty per cent reserve, the thirty-month privilege on merchantable timber, and the very definition of merchantable timber were all repealed.³⁹³ With regards to land sold for settlement purposes, timber dues were now exacted only if lots acquired by location tickets were not paid in full, and for no more than the value of the land itself. In other terms, the proceeds from timber sales were imputed on the balance owed to the Province and any surplus was to be returned to the settler, "*should the Lieutenant-Governor in council so determine.*" Moreover, if settlers took-up land "*in good faith*" and performed "*the settlement duties required*" without first obtaining a location ticket (i.e., squatters), the Lieutenant-Governor in council could, at "*his discretion, impute the timber dues chargeable on timber cut by such [an] occupant*" and return any remaining balance to the settler if his labour was found to exceed the value of the land itself.³⁹⁴ In short, instead of punishing illegal entry, the 'lawful' practice of an otherwise condoned behaviour could actually be

³⁹² Following alleged diversion of public funds for the construction of a railway line to the Baie des Chaleurs, and before the pursuit of a more thorough investigation, the Lieutenant-Governor Auguste-Réal Angers dismissed Honoré Mercier as Premier in December 1891.

³⁹³ See 1892, 55-56 Vict., c. 18,

³⁹⁴ *Ibid.*

compensated. Finally, any lot purchased within a territory held under license to cut timber ceased to be the subject of such authority by the thirtieth of April following reception of a request made to the Crown Lands Department. Consequently, other than the government's ability to coordinate where land grants and colonization roads should be located, the new rules more or less created open access conditions in the ungranted territory of the province, thus opening the door to renewed confrontations, competing land use claims, and bitter disputes over resource rights.

6.4 Industrialization: Renewing the Conservation Imperative

The development of a coherent theory of institutional change that can explain the evolution of public forest resource governance in Québec must necessarily consider how the administration of the province's public domain evolved. As discussed in this and preceding chapters (see Chapters IV and V), the need to discriminate between competing land use claims on the bases of the arable qualities of the soil constantly preoccupied succeeding Crown Lands Commissioners. Yet, the rational acknowledgement of such a necessity was never acted upon, either in terms of public policy or in the enforcement of applicable institutional constraints. While there can be no denying that weak enforcement capacity and inconsistencies in government priorities helped to create a professional class of land grabbers and roving bandits that brought about a general sense of insecurity amongst lumbermen, including gross social inefficiencies in the exploitation of available timber, the more crucial question is why such behaviour was allowed and even supported in some cases by the succeeding public officials who repeatedly vowed to take care of such problems. Neo-marxist approaches rooted in dependency theory or the staples thesis (e.g., Lower, 1938, 1973; Malenfant, 1987) cannot provide answers to such a question, nor can the posited revenue-enhancing paradigm and government-business nexus advanced by policy scientists (Howlett and Rayner, 1995, 2001). A more reliable line of reasoning would be to suggest that public policy makers faced different if not contradictory sets of incentives that lessened the likelihood of unilateral action in one direction or another. Until the needs of the forest sector and those of the colonists became more unified or at least (forced to become more) complementary to one another in the first decades of the twentieth century – as a formula for establishing resource dependent communities in the outlying regions of the province –

political leaders continued to play the middle ground by publicly chastising insensible colonization efforts while refusing to change the rules that lent credence to such behaviours. Consequently, even though the need for revenue encouraged legislators to provide favourable conditions to lumbermen, they could not politically commit themselves to one group over another. As Bates (1995, p. 46) put it, "numbers count" in electoral systems: "[p]olitical incentives spur efforts by politicians to secure majorities, and politicians will champion laws that favour the numerous small, even sometimes at the expense of the big interests."

In these final days of the nineteenth century, the pace of change suddenly quickened. Technological progress created new realms of possibilities, communication drastically improved, and previously isolated communities were increasingly linked by an expanding system of roads, railways, and telegraph or telephone lines. New user groups with different needs and interests began to change the way forests had so far been considered, and with the diversification of demand came new opportunities to diversify the revenue potential of the public domain. For instance, the Fisheries division, which was established in 1883, brought in \$2,167 that year. By 1898, returns from this branch alone yielded no less than \$40,943. The branch relating to Game was inaugurated on October 5th 1896 and within less than two years, there were already 79 leases covering an area of 3,700 square miles that had been handed to clubs and private individuals.³⁹⁵ The growing popularity of hunting and fishing also helped to foster the creation of the first public preserves, notably the Laurentides National Park (Act 58 V., c. 22) and the "Trembling Mountain Park" (58 V., c. 23) in January, 1895.³⁹⁶

With respect to public forests, the very character and nature of Québec's forest resource systems were themselves feeling the aftershock of a century of improvident exploitation. The pine reserves were nearly depleted,³⁹⁷ the large trees that gave the sawn

³⁹⁵ Report of the Commissioner of Lands, Forests and Fisheries, 1899.

³⁹⁶ As specified in their respective preambles, the "Parc des Laurentides" was established to specifically preserve its forests, fish, and game, maintain an even water supply, and to encourage the study and culture of forest trees. As for the "Parc de la montagne tremblante," which was eventually renamed "Parc du Mont-Tremblant," it was created to develop a sanatorium for the treatment of pulmonary diseases. Both parks were established by order in council (19 July 1894) before being turned into law by the provincial legislature.

³⁹⁷ The quality of pine, as well as is the average cubic content of remaining trees consistently depreciated between 1865 and 1895. The contents of waney white pine timber dropped from an average of 80 ft³ in 1865 to 58 ft³ in 1893, squared white pine went from an average of 66 to 44 ft³, and squared red pine was reduced from 59 to 39 ft³. Similarly, total Canadian exports for white pine in 1865 was 606,300 tons for a mean value of \$2,963,534 (or \$4.90 per ton), and in 1893, exports diminished to 105,789 tons for \$1,481,155 (or \$14 per ton). See Report of the Forest Wealth of Canada, p. 16-17, in Appendix to the Report of the Minister of Agriculture for 1894. Sessional Papers of Canada 1895. No. 8A

lumber industry its profitability were becoming harder to find, and in the old cut-over regions of the Laurentian highlands, Appalachian foothills and Ottawa watershed, the province soon found itself with an abundant regrowth of what was once regarded as mere forest weeds: balsam fir (*abies balsamea*), red and white spruce (*picea glauca*), poplar and aspen (*populus balsamifera*, *tremuloides*, and *gradidentata*), and birch (*betula populifolia* and *papyrifera*). But the bane of Québec's square timber trade and sawn lumber industry was the treasure trove of the far less discriminating pulp and paper industry. When considered in light of the seemingly endless boreal north of late nineteenth century Québec, one can readily appreciate why the pulp and paper industry came to dominate the province's forest economy during the twentieth century.

Up until the 1890s, there was scarcely ever any mention of the nascent pulp and paper industry in the reports of the Crown Lands Department. Pulp mills using various technologies and resources were established relatively early on in the 19th century but production remained marginal up until the 1880s. According to Charland (1990, pp. 49-54), the first paper mill in Québec was established in 1805 at Saint-André-d'Argenteuil (using non-wood fibres), but the very first mechanical pulp mill using wood fibre in Canada was established in Valleyfield (Québec) by the Alexander Buntin Company in 1866.³⁹⁸ Chemical pulp was introduced around 1889 in Hull (Québec), and many of the larger mills that were established afterwards integrated both technologies in their production process. By 1870, there were seven mills using wood fibres, and the numbers grew steadily thereafter to 18 in 1880 and 28 in 1901, with 12 others in the process of being built.³⁹⁹

Mechanical, or ground wood pulp, which is produced by grinding wood, was relatively cheap to manufacture, but resulted in fibres that were too short to provide the strength needed for the production of newsprint or finer grades of paper. Chemical, or sulphite pulp, on the other hand, required the use of more complex technologies and was thus more expensive to manufacture, but its reliance on a chemical separation process produced the long fibres that

³⁹⁸ Biggar (1908) indicates that the first paper mill in Canada, according to Pulp and Paper Magazine, was started at Jacques Cartier, Québec by a Mr. Jackson, in August 1800, and successfully operated until 1857. The second mill was started at St-André in 1803, the same year as the Fourdrinier machine, which was to revolutionize paper making, was introduced in England.

³⁹⁹ The development of pulp and paper mills is documented in Charland (1990, pp. 49-54). Figures for 1901 are provided in the Report of the Commissioner of Lands, Forest and Fisheries, 1901, p. xi.

were necessary to support the production of more resistant papers. Hence, most varieties of paper could be produced by mixing various concentrations of mechanical (70% to 75% of contents) and chemical (25% to 30%) pulp.⁴⁰⁰ However, regardless of the preference given to either or both of the two processes, the establishment of any pulp and paper mill was a capital-intensive endeavour, and those who invested in it ultimately gained an unprecedented degree of leverage and influence in the management of public resources.

The decision to pursue pulp and paper-making was thus predicated on the long-term stability of at least two fundamental factors: 1) an abundant and relatively cheap resource stocks, and 2) an unlimited source of power. Québec was well suited to fulfil both of these requirements and all levels of government endeavoured to provide as ideal a set of conditions as they could. At the municipal level, towns and cities located near sufficiently large rivers and ample resource stocks competed amongst each other to attract investors intent on building milling facilities by offering various benefits, such as long term (20 to 30 years) tax exemptions, loan guaranties and other questionable offers (Charland, 1990, pp. 70-71; Naylor, 1975, pp. 140-141; Niosi, 1975, p. 378). At the provincial level, the government made sure investors obtained the necessary supplies on favourable conditions, sold the rights to "water powers" on its rivers,⁴⁰¹ and enacted far-reaching incorporation acts that gave prospective pulp and paper mills exclusive rights to nearly every aspect of their operations and more.⁴⁰² Interesting examples of this practice include the acts to incorporate the Labrador Electric and Pulp Company (1900, 63 V., c. 72) and The Jonquière Pulp Company (1900, 63 V., c. 73). In both cases, the companies gained the power to erect, construct, and maintain dams along specified rivers; build any facility required for the purpose of their business; acquire, hold and enjoy all lands necessary for their operations, including the right to possess, purchase, lease, operate and sell timber limits and timber; manufacture mechanical and chemical pulp, paper, lumber and any other product incidental to their business; manufacture, sell or lease surplus water and electricity for local purposes; construct tramways or railways;

⁴⁰⁰ See "The Pulp Industry in Canada," by Lorne D. McGibbon, Manager of the Laurentide Pulp Company, in Third Annual Report of the CFA, 1902, p. 91.

⁴⁰¹ For example, Shawinigan Falls were sold for \$60,000 in return for a \$100,000 investment; Chats Rapids on the Ottawa were sold for \$10,000; Saguenay Falls and Metabetchouan Rapids were sold for \$3,000 each; and La Grande Décharge on the Saguenay was sold for \$6,000. See Budget Speech Delivered by the Hon. H.T. Duffy, Provincial Treasurer, in the Legislative Assembly of Quebec, March 11th, 1902. CIHM no. 78330

⁴⁰² The practice of incorporating and therefore securing the rights of pulp and paper manufacturers was initiated under the administration of F.G. Marchand (1897-1900).

grant licenses (for a fee) to others for the use of their patents; construct and maintain facilities and other infrastructure needed to convey electricity and water sold to municipalities; issue capital stock to creditors in lieu of payment for all or any part of their business; the power to receive from any government, town, city or municipal corporation exemptions from taxation, loans, gifts of money, guarantees and other securities; a perpetual indemnity against any damage caused by flooding that may be caused by its operations; and the power to expropriate land and buildings as required (except railways). In short, the provincial government was interested in generating private investments in its natural resources, and no concession was too great to achieve such ends. As Simon-Napoleon Parent, Commissioner of Lands, Forests and Fisheries⁴⁰³ and soon to be Premier put it in his 1899 report:

*"[The demand for] paper pulp or wood intended for that purpose...attract[s] more and more ...foreign capital ...[and] manufacturers desirous of making use ...of our forest riches within the immediate vicinity of their place of exploitation. We should therefore aid as much as possible this movement which is destined, unless we place obstacles in its way, to provide remunerative labour for our population in nearly every part of the country by the direct and indirect development of our forest, mineral and agricultural resources."*⁴⁰⁴

In a context where the production needs of pulp and paper manufactures were generously provided for, the main cost factor was thus *"determined largely by the cost of the raw material."* Naturally, the *"pulp manufacturer endeavor[ed] to obtain his supply of raw material at the very lowest possible cost"*⁴⁰⁵ and thanks to their investments, the industry gained unparalleled level of influence on how the political-economic affairs of the province ought to be managed. Obviously, rent seeking by lumbering interests was as old as the trade itself, but until the 1890s, such fervour had always been tempered by the imperatives of settlement and colonization. The situation changed however, when legislators understood that the pulp and paper industry could be used to advance the interests of the colonization movement and thus further settlement without impinging on the allocated resource rights of limit holders. As Treasurer, H.T. Duffy, succinctly put it in his 1902 address on the provincial budget, *"Our timber limits and our water powers are the true handmaids of*

⁴⁰³ Department of Crown Lands was reconfigured on January 9th, 1897 by Act 60 V., c.22 to create the Department of Lands, Forests and Fisheries, and the Department of Colonization and Mines.

⁴⁰⁴ Report of the Commissioner of Lands, Forests and Fisheries, 1899, p.v.

⁴⁰⁵ See The Pulp Industry, in Third Annual Report of the CFA, 1902, p. 93.

colonization.” With this change of emphasis came a subtle but definitive shift in the attitudes of public officials themselves. Gradually, the succeeding premiers and their cabinets took on an increasingly expanded view of their role in the provincial economy. No longer were they restricted to the management of public affairs. They were now becoming important partners in the success of private enterprise, a conception that would largely culminate with the premierships of Gouin (1905-1920) and Taschereau (1920-1935), before being carried to excess by Duplessis (1944-1959). Obviously, state involvement in public enterprise has never faded. In fact, the role of the provincial government in the exploitation of public natural resources only increased over time. While nowadays, governments can affect investment decisions through a diverse and complex set of financial and legal instruments that give a certain degree of opaqueness to their undertakings, provincial administrations at the end of the nineteenth century provided a more open view of their cards, and the decisions or strategies they pursued.

6.4.1 The Power of Private Capital

The discernable influence of the forest sector over the use of the public domain became progressively clearer in the 1880s and 90s. From the first attempt to create forest reserves, to Mercier’s thirty month reserve clause in favour of lumberers (see discussions above), and the favourable responses of governments to the demands of operators around the turn of the century (see below), the power of the forest sector in Québec’s increasingly industrialized economy reached unprecedented heights during this period, and its influence over public policy would only grow over time. The reasons for this change of fate in the struggle between lumberers and settlers are attributable to a number of factors. First, lumbermen provided substantial returns to the public’s coffers, whereas settlers did not. Second, the forest sector formed a relatively homogeneous community of interest that could concentrate its demands on specific issues. Since legislative action tends to favour “well-organized and concentrated groups at the expense of diffuse interests” (Tollison, 1988, p. 343; see also Olson, 1965), and the needs of colonization societies, settlers, and rural households differed from one region to another, the outcome of competing interests had predictable consequences. Third, industry, and pulp and paper manufacturing in particular, entail high start-up and maintenance costs, and in order for investors to feel confident about the value of their undertakings, they require

assurances and inducements, such as favourable regulatory environments, strict enforcement of property rights, and easy access to material and labour needs (Lindblom, 1977; North, 1981, 1990).

Hence, in addition to the government's willingness to hand over nearly unlimited rights to pulp and power investors at the turn of the century (see discussion above), the change in government attitudes vis-à-vis private entrepreneurs is further exemplified by the problems that different administrations faced in trying to leverage a surtax to prevent the export of unprocessed pulpwood. During their last term in office (1892-97), the Conservatives passed an order-in-council (no. 419), which called for an increase in pulpwood dues from 25 to 40 cents per cord on August 17th, 1894.⁴⁰⁶ Moreover, in order to ensure the long-term maintenance of this increasingly valuable resource asset, it was also considered prudent to impose a diameter restriction of eleven inches at the stump on all merchantable spruce a year later (order no. 104, dated 30 march, 1895). However, within a matter of weeks, the Commissioner of Crown Lands received a petition from the manager of the Québec-Lac-St-Jean Railway line complaining of a lack of traffic and comparatively high maintenance costs on a one hundred mile stretch of rail between Rivière-à-Pierre and Lac-Édouard (in the Mauricie region), due to the lack of industries in the area.⁴⁰⁷ As a solution, railway operators advised the Commissioner that the American-owned St. Maurice Lumber Company (a subsidiary of International Paper) would be willing to put up a mill along the said track if the diameter restriction on spruce was lowered to ten inches instead of eleven. No sooner asked than done, the limit was lowered as requested (no. 396, dated October 25th 1895) on the expressed condition that all appropriated timber be processed (cut and debarked) at the proposed mill.⁴⁰⁸ Similarly, in 1892, 1894, and 1895, the company was granted the right to

⁴⁰⁶ The original order allowed for a reduction of 15¢ if pulpwood was used to manufacture pulp or other products in Quebec. But merchants selling timber to the US argued that the government's policy was discriminatory, so Quebec simply replaced the contested clause with a single flat rate of 40¢ per cord for all timber limit holders (order no. 506, dated 6 October 1894). See "Copies of all orders-in-council adopted since 1892 inclusively respecting the regulation of the manufacture of pulp wood dated January 30th, 1900," in Sessional Papers, 1900, Part 3, No. 19.

⁴⁰⁷ See "Copies of all orders-in-council adopted since 1892 inclusively respecting the regulation of the manufacture of pulp wood dated January 30th, 1900," in Sessional Papers, 1900, Part 3, No. 19.

⁴⁰⁸ The St. Maurice Lumber Co., which exported all appropriated timber to Glen Falls, NY, continued to push for more concessions, including a reduction in the diameter restriction for pine to ten inches that was promptly denied. Then in October 1896, the company (with a supporting letter from the railway director) demanded a 15¢ reduction on the cord of pulpwood (equal to 25¢ per cord) on the promise that it would build two mills on the Québec-Lac-St-Jean railway line, to provide even more employment and revenues to the state, while helping to promote settlement and improve railway maintenance. Unfortunately, the Commissioner's response could not be traced.

pay a reduced rate on spruce logs (40¢, instead of 65¢, per thousand board feet) that were less than ten inches in diameter and therefore unfit for anything other than pulpwood.⁴⁰⁹ By this skilful expedient, the St-Maurice could effectively cut “defective” spruce trees in exchange of a 25¢ reduction, based on a criterion that was knowingly unenforceable. Exactly how the only commercial firm in Québec that exported all of its timber unprocessed to the United States – a practice that was heavily criticized at the time – could be allowed to operate under payoff rules that were less restrictive than what others faced could not be ascertained.

Like the broad powers that were later given to those who purchased the right to harness the energy from the province’s rivers, the provincial government was becoming increasingly sensitive to the advantages that industry procured in terms of furthering regional development. If by ceding some advantages to private operators it could induce employment-generating investments, help stem the flow of French Canadian migrants to the factory towns of New England, and contribute to the expansion of the colonization agenda, then the costs of less restrictive institutional arrangements appeared a reasonable price to pay for the benefits that were expected.

As suggested elsewhere, the industry’s ability to flex its newfound muscles and exert influence over policy-makers reached an unparalleled significance under the commissionership (1897-1904) of Simon-Napoléon Parent. Fearing the political and economic consequences of the massive pulpwood exports from the province to milling facilities in the United States, Parent tried to impose a surcharge of \$1.60 per cord of unprocessed pulpwood exported outside of the province in January 1900.⁴¹⁰ While in favour of a system that increased opportunities for the manufacture of pulp in the Canadian Dominion, the Paper Manufacturers Association of Canada felt that Québec’s approach unnecessarily breached the rights of operators with processing facilities in Ontario and New Brunswick. On May 29th, 1901 the Paper Manufacturers and Timber Limit Owners of Québec sent a petition to Parent requesting an immediate change to what they regarded as an export tax:

⁴⁰⁹ See Parent, S-N (1903) *Discours de l'hon. S.N. Parent, premier ministre, sur la question des droits de coupe sur le bois à pulpe, prononcé à l'Assemblée législative de Québec, le 25 avril 1903*. Québec : [s.n.], pp.10-13.

⁴¹⁰ By order-in-council no. 39 (18 January 1900), the Commissioner raised dues on pulpwood to \$1.90 per cord with a reduction of \$1.50 when pulpwood manufactured in the province.

*"petitioners, have been extensively engaged in the manufacture of spruce and have been large contributors to the revenue of your department, and have vested rights long before the present act governing the cutting of spruce was passed."*⁴¹¹

The memorialists asked that the tariff on pulpwood be retroactively fixed at 40¢ per cord until 1910 and that no diameter size restrictions be placed on black spruce. The request was promptly dealt with. While Parent considered that foreign investment in Québec's natural resources would be best achieved by imposing "*an exceptional duty on the production of raw material destined to supply foreign manufactories,*" he reasoned that too high a tariff would inevitably incite manufacturers to find the "*articles*" of "*prime necessity in the neighbouring provinces on easier conditions.*"⁴¹² Further, since the application of a surcharge was considered "*practically inapplicable,*" due to the plethora of ways that operators could use to evade the Department's control,⁴¹³ the price on pulpwood manufactured in the Dominion (i.e., not just the province) was adjusted by order-in-council (no. 558, dated June 1st, 1901) to 40¢ per cord, allowing for a 25¢ surcharge to be imposed on exports south of the border.⁴¹⁴ The diameter limit on "*black spruce, balsam fir, poplar, hemlock, and other small timber logs intended for the manufacture of paper pulp*" was set at seven inches at the stump "*to favour industry and colonization.*"⁴¹⁵ Rates pertaining to ground rents (set at \$3.00 per square mile) and all other stumpage dues (as established in 1888 – see Table 6.1 above) were prolonged until September 1st, 1910. An unspecified annual fire-tax (to be "*fixed from time to time by the Commissioner*") was added, and the bonus on the transfer of timber limits was raised from \$1.00 to \$4.00 per square mile.

⁴¹¹ See Appendix 40 (p.6), Sessional Papers Vol. 36, Part 3, 1903. Lest it should be misunderstood, the Paper Manufacturers Association was very much in favour of a surcharge on exports to the United States. Their main concern was that Quebec discriminated against all manufacturers outside of the province. It was "*imperative,*" members argued that an annually increasing surcharge be imposed on exports of spruce logs and pulpwood. Legislative action on this finally came in 1910 under Gouin.

⁴¹² Report of the Commissioner of Lands, Forests and Fisheries, 1899, pp.v-vi. Parent goes on to state that "*before coming to any decision... I have deemed it my duty to communicate with most of the leading capitalists and merchants engaged in that business in order to ascertain their views and obtain from them all data that might affect this subject of discussion.*"

⁴¹³ In reaction to the demands of timber limit owners, Paul Blouin, Superintendent of Woods and Forests commented that: "*par expérience...le droit [appliqué] au bois de pulpe fabriqué en pâte à papiers hors de la province est pratiquement inapplicable. On trouve pour s'y soustraire et frauder la Couronne une foule de moyens qui échappent inévitablement à notre contrôle.*" See *Discours de l'Hon. Parent* (1903), pp. 6-7. The comment brings into question the government's very capacity to monitor and enforce any of its rules.

⁴¹⁴ Report of the Commissioner of Lands, Forests and Fisheries, 1901

⁴¹⁵ *Ibid.* Reduction in diameter size restrictions on spruce were based on assurances from the "*leading surveyors of the country*" that "*the black spruce tree best suited for pulp-making seldom attains a diameter of eleven inches at the stump – and since in certain regions...three-fourths of the forest consist of trees of that kind, it was becoming impossible to dispose the same by continuing to prohibit the cutting of trees under 11 inches*" (p. viii).

Whilst legislators were evidently willing to amend rules in favour of *large capital holders*, as businessmen and industrialists were then referred to, the extent to which they held on to their seats in parliament was still determined by the broader electorate, not the deals they brokered with private interests. The task therefore was to turn the benefits of private sector investments to advantage by demonstrating the benefits of trickledown economics. As explained by the Provincial Treasurer in 1902, in his attempt to defend the heavily criticized and unprecedented sale of energy rights to foreign investors, along with the granting of 14,486 square miles of timber limits since 1898:

"the best possible way to help colonization and emigration is to make it possible for the colonist and emigrant to live in the country.....[O]ur pulp and paper industry, and the development of our water powers gives employment..., and furnishes our farmers and new settlers with a market...for their...produce."

The government's policy was so "*marvellously successful*," Treasurer Duffy went on to explain, that a town like Shawinigan, which did not have "*a single inhabitant*" five years before, could grow four thousand strong because of his government's policies.⁴¹⁶ The conclusion was straightforward, provide incentives and favourable conditions to foreign investors willing to develop the province's natural resources, and everyone else will benefit. To achieve this goal however, Québec first needed to put an end to "*the pillaging of the forest under the specious and alluring pretext of colonization*," and limit the devastating fires, which were supposedly caused by the carelessness of false settlers.⁴¹⁷

6.4.2 Dealing with Farmers, Settlers, and Speculators

By 1903, Parent estimated that at least fifty percent of Québec's pulpwood production was exported to the United States.⁴¹⁸ Of the estimated 300,000 cords (i.e., 38,400,000 ft³) of pulp wood exported on an annual basis, only 50,000 cords were known to be produced by timber license holders,⁴¹⁹ the rest came from farmer-held woodlots and land acquired for

⁴¹⁶ See Budget Speech Delivered by the Hon. H.T. Duffy, Provincial Treasurer, in the Legislative Assembly of Quebec, March 11th, 1902. CIHM no. 78330

⁴¹⁷ J.C. Langelier, 1901. "The Pulp Industry in Relation to Our Forests," in *Second Report of the CFA*. Ottawa: Government Printing Bureau, p. 43

⁴¹⁸ See *Discours de l'Hon. Parent*, 1903, p. 22.

⁴¹⁹ Of the 300,000 cords of pulp wood exported to the United States in 1903, the Superintendent of Woods and Forests, Paul Blouin, estimated that 44,958 cords were produced by the St. Maurice Lumber Company and the Union Bag Company, 5,790 cords were produced in the remaining firms, and 250,000 stemmed from private wood lots. See – *Discours de l'Hon. Parent*, 1903, pp. 24-26.

settlement purposes. For those who invested heavily in developing Québec's forest resources, there could be no greater evil than the pillaging, waste and destruction perpetrated by speculators and lumbermen disguised as settlers.⁴²⁰ To understand the dynamics that were then at play, clear distinctions need to be drawn between the incentives that farmers in established communities were confronted with and the depredation that was said to occur under the guise of settlement. In a paper delivered before the Canadian Forestry Association in 1908, the Dean of the Faculty of Arts at the University of Laval, Mgr Laflamme,⁴²¹ explained that everywhere, farmers were increasingly compelled to sacrifice their long-term interests for short term pecuniary gains. "[T]he very rapid development of railroads, telegraph and telephone lines, and above all, the devouring industry of the manufacture of pulp," Laflamme observed, had resulted in the doubling of the price of a cord wood since the turn of the century (from \$1.50 to \$3.00 for a cord of spruce and \$2.50 to \$5 or \$6.00 for maple). As a result, "*farmers have gone to work to exploit their forest reserves and sell their products either directly to the manufacturers or to agents who establish a very lucrative business.*" While improving their situation "*by meeting their most pressing debts or by procuring comforts of which they had never even dreamed,*" the rate at which forests were being cut could not be productively sustained, "*because...proprietors, by this intensive exploitation, demand[ed] from their forested areas more than they annually produce[d].*" Instead of the "*hundred cubic feet of wood*" or so that a forest might yield, farmers were "*harvest[ing] a thousand,*" due to the necessity of "*temporary difficulties*" or the more "*regrettable indifference*" to the future. Laflamme advocated the need to follow the lead of the United States, which had initiated a vast program designed to educate farmers on the benefits of forests, and encourage the re-stocking of deforested areas with diverse and valuable trees under the guidance of dedicated foresters – a strategy that was based on the time-honoured principle of diversifying one's investments in order to leverage more economic opportunities over the long term.⁴²² But the challenge of convincing farmers that they "*should only demand of their forests each year the equivalent of the wood that grows*

⁴²⁰ Exports of unprocessed wood were broadly decried as a loss for the public treasury and an encouragement to overexploitation, since it left most of the gains from transformation uncaptured. On this subject, see the Annual Reports of the Canadian Forestry Association, from 1900 to 1911.

⁴²¹ Laflamme, Mgr J.U.K., 1908. "The Manner In Which Some Farmers Use Their Wood," in *Ninth Annual Report of the CFA*, pp. 29-34.

⁴²² The success of this experiment is visible today, throughout north-eastern United States, particularly in New York State and New England. Little did they know at the time that the pursuit of such strategy also helped bolster biodiversity and create more resilient forests.

there,” lay in the more difficult problem of convincing “them that their interest, well understood, demands that they renounce their profits of to-day,” as high as these may be, “and content themselves with more modest gains, but such as shall always persist.”

The notion that sustainability is somehow constitutive of a self-interest, “*well understood*” as Laflamme put it – a conception that largely parallel’s de Tocqueville’s ([1835-1840] 1990, II, p. 121)[1835-1840] 1990, II, p.121) idea of “self-interest rightly understood” – harkens back to the ideas of Henri Joly and Benjamin Hough discussed earlier. In this sense, the dilemma that succeeding governments faced was not unlike the challenges farmers were confronted with in Laflamme’s study. Both faced imperatives that helped justify their actions. Neither were willing to recognize that their long term interest, *well understood*, lay in reducing their consumption of resource units and in maintaining the reproductive capacities of the system they depended upon, and thus equalize returns over the long term, instead of maximizing short term benefits.⁴²³

With respect to land acquired for settlement purposes, one may safely posit that their proprietors were just as keenly motivated to take advantage of the demand for pulp wood as were their counterparts in the older settlements. But unlike established farmers, the rights of settlers to use and dispose of such timber was determined by law. Until titles were perfected (i.e., settlement duties complied with and money owed to the government paid in full), the state remained the residual claimant of all crown lands and the timber thereon, and could revoke, change or modify the conditions applicable to the sale of the said land or use of related timber at any given moment, should the “Lieutenant-Governor in council” think it expedient to do so. Government therefore, affected land use decisions by the regulations it set and by the extent to which it applied and enforced its own rules. Land use decisions were in turn guided by two fundamental principles that were as old as the first European colonial establishments in the province. The first being that settlement should be encouraged by all necessary means and the second, that land use should be determined by the arable qualities of the soil, with the Crown reserving as always the right to set aside for its own benefit or

⁴²³ Unfortunately, Mgr Laflamme’s advice was never followed. The poor quality of Quebec’s deciduous forests, along the St. Lawrence Valley and Eastern Townships, and the consequent absence of wood suitable for the manufacture of higher end products such as furniture and cabinetry was denounced in the “Second Annual Report of the Quebec Forest Products Commission” (1933, pp. 7-8) and the report of the “Commission d’étude sur la gestion de la forêt publique québécoise.” Bibliothèque nationale du Québec, 2004 pp.163-169.

purpose, all land fit for growing timber only. From the earliest days of the French regime to the British Conquest and the development of responsible government a century later, the need to classify land according to its cultivable potential served as the core management principle of succeeding governments until the twentieth century.⁴²⁴ Yet, in spite of articulating such a principle in nearly every legislative or regulatory requirement ever adopted on this issue, with periodic acknowledgments from succeeding Crown Lands Commissioners, the extent to which land conceded for settlement was appropriate for agriculture was seldom if ever validated. In fact, the practice of acquiring land via location tickets, for the sole purpose of extracting timber at a fraction of the cost of a license to do the same, was pursued with unremitting consistency from the earliest days of the trade onwards. Of course, efforts to apply and enforce Crown land regulations have been impaired by a number of factors over the years, including the sheer size of the province, unreliable land surveys, limited means of communication, weak monitoring and enforcement capacities, and the difficult if not impossible task of maintaining control over the transactions of isolated land agents. However, the fact that the rules governing land use were so often inconsistent with the overall objective of preserving timber for the benefit of the Crown and the lucrative trade it supported, begs the question of why such inefficient rules were knowingly maintained or reinstated time after time. The answer, as discussed on several occasions already, lies in the fact that settlement and colonization were to be favoured by all possible means, and that the sale of well-timbered land was easier to complete than the sale of land denuded of useful timber.⁴²⁵ But once land in the alluvial flood plains, lowlands, and hardwood forests of the province was spoken for, government began promoting colonization on the rocky shoals of the Appalachian and Laurentian foothills. And so, from the 1860s onwards, “*most of the lots given up to colonization*,” the Superintendent of Forest Rangers, J.C Langelier, admitted in a paper delivered before the 1901 meeting of the Canadian Forestry Association, were “*not*

⁴²⁴ The need to survey land, establish timber reserves and identify those areas that can be effectively settled formed part of the basic set of instructions handed to colonial governors from Murray (1764-1768) to Sydenham (1839-1841). It was reiterated in the instructions given to the Province's first Commissioner of Woods and Forests (John Davidson) in 1826 and the first Commissioner of Crown Lands (W.B. Felton) in 1827, and was subsequently reaffirmed by all of their successors (see Chapter IV).

⁴²⁵ This point was again reinforced in the findings of the Colonization Commission (1904) which endeavoured to reassure migrants and potential settlers that “*they may be sure of finding...all the timber needed for building and even for sale to maintain their families during the first years*.” See “Report of the Quebec Colonization” in *The Canada lumberman*, 1904, 25(5):20-21.

suitable for profitable farming."⁴²⁶ Between 1867 and 1913, an average of 157,391 acres were sold annually in Québec for settlement purposes. Of this amount, some 53,935 acres (nearly a third) were reverted back to the Crown on a yearly basis due to sale cancellations.⁴²⁷ Since lots obtained under false pretences were just as soon cleared of merchantable timber before being abandoned, and that many a poor settler reportedly toiled laboriously to remove forest growth only to discover that the soil could not support much more than a season or two of sowing, one can safely assume that a considerable portion of the land that was thus returned to the Crown was likely cleared of its valuable timber – a fact that is later corroborated by the creation of the first tree nursery in Québec and the efforts of the Ministry of Lands and Forests to reforest the 3,000,000 acres of waste lands created by the improvident sale of uncultivable areas (see below). A telling example of this problem was again presented by Langelier. He observed that in one area of the lower Laurentians,⁴²⁸ a total of 73,258 acres were taken up for settlement during the 1880s and early 90s. Out of this amount, only 12,091 acres (less than 17%) were still under crop at the turn of the century. The rest of the area, Langelier claimed, had been cut over by "speculators" and "false-settlers."⁴²⁹ Ultimately, the high price of timber led "*a host of merchants*" to approach "*individuals with patented lands or lots*," since these were "*not subject to the regulations of the provincial government*," and "*forests [could be] razed [with] not even the young trees ... left for producing seed [or ensuring] the reproduction of the forest.*"⁴³⁰

Over time, the villain with a thousand names – "lumbermen disguised as settlers," "false-settlers," "timber thieves," "ruthless merchants," "speculators," "timber agents" – became the scapegoat for all the evils that affected honest limit holders, robbed the government of its revenue, started the fires that squandered the province's forest wealth, and gave a bad name to settlers. Reports of roving bandits taking advantage of Crown land regulations to access timber on false pretences can be traced as far back as the 1820s. Yet, such "false-settlers" seldom operated outside of existing rules. Rather, accounts of

⁴²⁶ See Langelier (1901) "The Pulp Industry in Relation to Our Forests," p.44.

⁴²⁷ See Appendix No.6, "Statement Showing Number of Acres of Crown Lands Alienated", in Report of the Minister of Lands and Forests of the Province of Quebec ending June 1913.

⁴²⁸ The area in question was developed by Father Labelle, one of Quebec's foremost leaders of the colonization movement, and former Assistant Commissioner of the Colonization Department that was created by Honoré Mercier. He died in January 1891 after a failed operation.

⁴²⁹ See Langelier (1901) "The Pulp Industry in Relation to Our Forests," p.44.

⁴³⁰ *Ibid.*, p.46.

improvised lumberers tend to support the idea that such operators simply learned how the system could be turned to their advantage. After all, the laws that made it possible for anyone to request and obtain nearly any parcel of land under the settlement clause was not formulated, applied, or enforced by the so-called false-settlers, but by government and the functionaries or agents in its employ. While the pernicious effects of Crown land regulations were variously underscored by succeeding commissioners, few governments ever attempted to make the system more coherent. And when changes were adopted, as in 1883 with the Forest Reserve Act and in 1888 with the thirty-month reserve clause, seldom did these changes last longer than the administration that implemented them. Otherwise, as when Simon-Napoléon Parent occupied the Premier's office between 1900 and 1904, crown land regulations were wilfully ignored as if to create the impression that the *legal* appropriation of lots under license was pursued by criminals in breach of existing regulations and could thus be vilified for acting in accord with existing institutional arrangements.

Hence, the situation was undoubtedly more complex than what authorities and limit holders willingly depicted to their advantage. When compared with the area that was placed under licence to cut timber, the amount of land sold for settlement purposes after 1867 remained somewhat marginal. Between June 1868 and June 1903, the land conceded to limit holders rose from 17,997 square miles (or 46,612 km²) to 62,952 square miles (or 163,045 km²), which meant that for every acre sold for settlement purposes, five were placed under license to cut timber. Given that the wood needed to support household requirements (fuel and building supplies) was already in short supply by the early 1860s, as noted in several bills that were intended to "*preserve standing timber*" in established communities,⁴³¹ it stands to reason that local demand for wood did not dissipate after 1867. Instead, farmers and various entrepreneurs used the accommodating terms of Crown land regulations to access the supplies needed to fulfil domestic demand. As the Colonization Commission⁴³² would later reveal (see below), Crown forests were sought by an assortment of user groups that included

⁴³¹ See Bill 97, "An Act to provide for the preservation of standing timber," 1863, CIHM no. 9_03033; Bill 20, "An Act to empower county councils in Lower Canada to suspend within the limits of their jurisdiction the operation of the provisions respecting *découverts*" (i.e., the obligation to cut strips of woodland between adjoining parcels of land for the shading that may cause prejudice on the productive potential of neighbouring croplands), 1863, CIHM no. 9_03114; Bill 57, "An act for the protection of standing timber in the province of Lower Canada, 1863, CIHM no. 9_02692.

⁴³² See Report of the Colonization Commission, 1904. Québec: Dept. of Colonization and Public Works. A transcription of key findings and recommendations is also available in *The Canada lumberman*, 1904, 25(5):20-21.

legitimate settlers with limited choice over the quality of available sites; established inhabitants who purchased Crown land to meet household needs, possibly taking advantage of the demand for pulpwood to cut and sell timber for their own benefit; and various entrepreneurs who followed the time-honoured tradition of acquiring land rights in order to evade Crown dues.⁴³³ In the absence of any effort to coordinate land use amongst the various user groups, confrontations were inevitable.

Other than settlers, no one was encouraged to become the actual owner of a parcel of land, or to maintain the productivity of the forests acquired through the settlement clause. Settlers were asked to fulfil their “duties” and “improve” their holding by clearing standing timber, constructing a house and other buildings as required, and to place under crop so many acres of land per year. Lumbermen on the other hand were expected to pay a minimal ground rent and to remit dues on timber appropriated in right of applicable diameter restrictions. Apart from these two legalized forms of occupation, no other tenure arrangement was permitted. Since those who acquired land under false pretences (however legitimate their needs may have been) knowingly obtained a title that could be revoked at any time, such operators faced strong incentives to remove merchantable timber as quickly as they could. Efforts to provide long term forest rights to local operators and communities, as Bouchette (1906)⁴³⁴ and Joly⁴³⁵ recommended were finally adopted at the end of the 1930s as a way to stimulate regional employment, increase joint returns and reduce pressure on resources through common property and cooperative arrangements (see Chapter VII).

⁴³³ As referenced further below, the law affecting the management of Crown lands and forests was amended in 1904 to allow farmers and communities to take wood from Crown lands (under permission) to meet household needs related to fuel and building materials. Eventually, this clause was replaced with the creation of “Cantonal” Forest Reserves in 1911 to address the plight of communities that had no more wood to support their needs. Interestingly, the Cantonal Forest Reserve system consecrated an idea that was first proposed by Henri Joly nearly half a century earlier in 1863 to the legislature of the United Province of Canada (but without the local governance institutions that called for the establishment of community-based forest management systems).

⁴³⁴ In “L’Indépendance économique du Canada Français” (1906, pp. 294-300), Errol Bouchette advocated the creation of a non-governmental Society of Forest Industries (“Société des industries forestière”) to improve the capacity of settlers to manage forests directly, monitor compliance, identify market opportunities, and help finance the development of cooperative milling operations and pulp and paper manufacturing using supplies from private and public sources (managed by local inhabitants). Further, operators would be bounded by mutual commitment to maintain the permanence of collectively used forest resource systems. “[C]haque colon...recevrait un titre, disons à deux cents acres de terre au lieu de cent acres ... dont il s'engagerait à tenir une portion déterminée en coupe réglée... Les colons s'engageraient à ne pas les vendre directement [les bois provenant d'une coupe annuelle], mais à les porter à la fabrique qui serait établie dans leur voisinage et dont ils seraient les actionnaires... une scierie, dont les colons ainsi groupés seraient conjointement les propriétaires ou les patrons, pour une époque déterminée” (p. 295). References to common-property management of forest resources in late nineteenth century literature are also made in Phipps, 1883, *Report on the necessity of preserving and replanting forests*, and Hough, 1880, *Report on Forestry*, Volume II.

⁴³⁵ Bill 97, “An Act to provide for the preservation of standing timber,” 1863, CIHM no. 9_03033

6.4.3 Legitimizing Change: The Colonization Commission

With the sudden increase in the prominence of pulp and paper manufacturing at the end of the nineteenth century, industrialists began pressuring government into safeguarding their timber limits. To this end, the forest industry could not have found a more fervent defender of their interest than the person of Simon-Napoléon Parent, who was both commissioner of crown lands (1897-1904) and Premier of the Province (1900-1904) during this crucial transition period. However, given the Liberal party's historical stance as the defender of the colonization movement, it was inadmissible for Parent to alter the pro-settlement regulations adopted in 1892 by the opposing Conservative, without appearing to renege the commitments of his own party. The solution therefore was to secure the expansion of the colonization effort by meeting the needs and interests of the forest sector, or as Treasurer Duffy had put it, to turn the forests and water powers of the province into "*the handmaids of colonization*" (see above). Hence, if "*settlement and opening up of our vacant lands and the consequent increase of our population constitute our chief aim*," Parent reflected, then the way to achieve such an end was to capture the benefits of development through "*the exploitation of our vast forests*."⁴³⁶ Parent conjectured that since public forests "*constitute our greatest source of revenue*," then it follows to reason that the province will only find what it "*needs to become a great manufacturing country and thereby retain ...[its] population*" by placing its resource wealth in the hands of those who are best able to finance the industrial expansion of the province.⁴³⁷ To provide the allure of political correctness in his decision to support the interests of pulp and paper manufacturers over smallholders, Parent called for the creation of a commission in 1902 "*to assist in the advancement of colonization and the development of forest industries*."⁴³⁸

After several false starts,⁴³⁹ the Commission was finally placed in the trusted hands of the pro-conservation senator Joseph Hornidas Legris and long-time civil servant of the Woods and Forest branch, Jean Chrysostome Langelier. From a political perspective, the task of the Commission was relatively clear: absolve the industry and government of all possible

⁴³⁶ Report of the Minister of Lands, Mines and Fisheries, 1902, p. vii. Through Act 1 Ed. VII, c. 8 (1902), the Department of Lands, Forests and Fisheries was renamed the Ministry of Lands, Mines and Fisheries

⁴³⁷ *Ibid.*

⁴³⁸ The Colonization Commission was initiated through Act 2, Ed. VII, c. 3, 1902.

⁴³⁹ The head of the Commission was changed three times and the Commission itself was relaunched twice. Legris and Langelier essentially headed the Commission, supported by Judge John L. Brodie and Pastor N. Thivièrge.

wrongdoing and failure in the management of Crown resources; uphold the idea of the virtuous settler; and place all the ills of irresponsible forest use in the hands of “speculators” and “false-settlers.” The main conclusions of the Commission were thus straightforward and unequivocal.⁴⁴⁰ The Commission found that there could scarcely be a more productive and respectful relationship than that which existed between *bona fide* settlers and limit-holders. The several “*isolated cases*” where licentiates may have been proven to be somewhat “*guilty of injustices*” towards settlers were the “*exceptions*” that “*prove[d] the rule*.” Complaints such as the cutting of timber below allowable diameter restrictions and clear cutting of lots before surrendering them for settlement purposes were described as “*unfounded rumours*,” spread by “*speculators disappointed in their schemes by the vigilance of the Crown Lands Department*.” In essence, the “*scourge of colonization*,” the cause of “*serious losses to the license-holders*,” and the principal “*menace to the legitimately conducted lumber industry*” were all attributed to the ruthless “*speculators*” and “*interlopers*” who disguised themselves as settlers to extract ever larger benefits from the public domain. Among the more important recommendations, the Commission reiterated the need to make distinctions between the land suitable for cultivation and that which should be strictly kept as forests; holders of location tickets should be bound to sell their wood to the licensed limit holder who previously held the rights to the said lot; crown land agents should have the legal authority to cancel any lot wherein purchasers are suspected of illicit conduct; lots sold through location tickets should be duly registered with signed affidavits to prevent the accumulation of land by speculators; and fire season should be extended to include April, May and June.

6.4.4 Supply Guarantees: Forest Reserves Revisited

Until Parent held in his hands the definitive proof he needed to pursue the changes sought by industry, and thus alter his party’s long time opposition to legislation that might appear to favour the forest sector over the colonization movement, he continued to grant the wishes of limit holders by the time honoured expedient of orders-in-council. As the Commission proceeded with its inquiry, complaints from limit holders kept pouring into the Premier’s office. By 1903, the demands of the Limit Holders’ Association became more or less consistent, incorporating the familiar refrain of depredation by settlers (legitimate or not)

⁴⁴⁰ See transcription of key findings and recommendations in *The Canada lumberman*, 1904, 25(5):20-21

who "robb[ed] limit holders of their property and the province of its dues by obtaining location tickets for land notoriously and manifestly unfit for cultivation and settlement."⁴⁴¹

The problem, according to limit holders, lay in the May 1st deadline for requesting lots that were held under license to cut timber. Since most would-be settlers waited as near the closure date as possible before submitting a claim for the land in question, limit holders felt that such claims constituted nothing less than a seizure of their property and a confiscation of public revenues. Parent responded with his characteristic zeal and passed a succession of orders-in-council disallowing the sale or free grant of land in various districts across the province.⁴⁴² Moreover, Crown land agents were now obligated to submit rigorous inspection reports of lots requested for settlement purposes in their agency, and should such reports prove inaccurate or incomplete, the offending agent was liable to be dismissed from his duties. As always, the Minister reserved the right to make the final decision regarding the extent to which certificates ought to be issued (or not).

Reprieve from having to deal with each individual case came in the spring of 1904, after the conclusive report of the Colonization Commission was finally submitted to the provincial legislature. With Chrysostome Langelier as the principal author of the Report, Parent was assured of a near perfect justificatory piece to defend the pressing legislative reforms that the forest industry demanded.⁴⁴³ On June 2nd, 1904, the law respecting the sale and management of public lands, woods and forests (Act 4 Ed. VII, c. 13) was amended to include many of the assurances sought by industry. Among other things, the Lieutenant-Governor in council was given the authority to classify public lands according to their suitability for "cultivation" or "forest industries" (Article 1268a), and in the future, land sold for colonization purposes could only be obtained in areas that were classified for such

⁴⁴¹ See "Memorial of the Quebec Limit Holders' Association to Hon. SN Parent" (pp.9-10), in *Copies of orders-in-council, documents and letters on the subject of difficulties between settlers and limit holders*, Return No. 135, Sessional Papers, 1903.

⁴⁴² See Sessional Paper no. 38, Sessional Papers, 1907 Vol. 40, pt.3

⁴⁴³ Langelier's report was largely consistent with his prior beliefs. As presented before Canadian Forestry Association in 1901 Langelier considered that "the pulp industry [did] not constitute a threat or a danger in connection with the preservation of our spruce forests; on the contrary, it adds considerably to the productive capacity of those forests. The great, the real dangers, in this respect are, in the first place, fire, then the abuses committed under pretext of colonization and wastefulness in lumbering operations," which he equated to the overexploitation of forests on land held under location tickets. If the boreal forest was affected by "the fires started each summer by the Indians," the mixed forests of southern Québec were afflicted by the "Many interloping traders who hold no timber licenses and use [the pretext of colonization] for securing the cut of timber which they could not otherwise obtain. ...Notwithstanding all the efforts of the government to stop these fraudulent practices, they are carried on an extensive scale, and this explains how so much land unfit for profitable farming is every year given over to colonization." See Langelier, 1901. "The Pulp Industry in Relation to Our Forests," Second Annual Report of the CFA, pp. 39-47.

purposes (Article 1268b). Crown Land agents were obligated to sell land (up to three hundred acres) applied for by *bona fide* settlers (Article 1269), provided that such settlers make a declaration under oath that such land shall be used principally for cultivation (Article 1269a). The Minister reserved the right to cancel any sale, grant, lease or license should he have reason to suspect that a violation of the conditions applicable to the said transactions had been committed (Article 1283 – the owner or occupant was given twenty days to contest any such cancellations, Article 1288). Saw-mill owners or persons carrying on the lumber business may be required to declare upon oath the origin of the timber owned by them and to prove, if required, that such timber is exempt from Crown dues (Article 1321a). No timber dues were to be exacted from trees cut for settlement purposes (Article 1342). Owners of timber limits were required to give the owner of a location ticket a “*preference*” in terms of cutting “*for him the merchantable timber on such lot*” (*Ibid.*), or to sell in preference to the holder of the timber license all the timber cut by him (Article 1343d) until the latter’s license expired on the following April 30th (Article 1342, Section 20).⁴⁴⁴ The Lieutenant-Governor in council reserved the right to sell public lands not under license for industrial purposes upon conditions which it alone could define (Article 1343c – thus confirming the right of the executive to sell any section of the public territory without legislative approval). Finally, to address the critical shortage of wood in older settlements relative to fuel and construction needs, the Minister reserved the right to grant licenses to cut, on Crown lands, fire-wood and timber for the construction of houses, buildings and fences (Article 1343b – provided there is no appreciable quantity of merchantable timber on the lots assigned, as amended under 5 Ed. VII, c. 16, 1905), along with the right to operate “sugaries” on Crown lands (Article 1343a).

Premier Parent’s ability to savour the successful reinstatement of the forest reserve principle was however cut short in the run-up to provincial elections in November 1904 when Joseph H. Legris, the Chair of the Colonization Commission, accused Parent of corruption and of being overly generous to the forest industry.⁴⁴⁵ In spite of winning a landslide majority on November 25, dissension amongst the Liberal ranks kept growing. On February 3rd, 1905, three of Parent’s most prominent cabinet ministers (Lomer Gouin, Adéland Turgeon, and

⁴⁴⁴ In effect, the revised regulations did not amend the clause that was strongly contested by lumbermen and which essentially enabled settlers to wait until the very end of April to claim a parcel of land held under license.

⁴⁴⁵ See “Rapports de comités: Administration du Département des Terres de la Couronne,” in *Débats de l’Assemblée législative*, 14 mars, 1905, pp. 75-113.

William Alexander Weir) resigned and five days later, some 44 members of the Legislative Assembly asked for his resignation. Lomer Gouin was appointed Premier on March 21st and with his no-nonsense leadership approach and strong beliefs in education and the professionalization of public administration, Gouin's fifteen-year tenure in office ultimately turned Québec into the leading pulp and paper manufacturer of the world, all the while instituting some of the most progressive forest legislation of the day.

It was Gouin therefore, and his government, that ultimately gave meaning to Québec's forest reserves. Between 1904 and 1908, some 19 reserves were established in the province, covering a total area of 174,064 square miles (or 450,823 km²).⁴⁴⁶ The forest reserves served a number of different objectives such as watersheds maintenance (e.g., Chaudière),⁴⁴⁷ or the protection of other valued goods and services such as fishing, game-hunting and even recreation (e.g., Gaspésie). But as specified in a 1906 amendment of the law respecting public lands,⁴⁴⁸ forest reserves were to be established above all for "*the production, conservation, and cultivation of trees,*" to ensure "*a constant supply of timber,*" and to regulate the perpetual flow of waters originating upon such lands. In short, if Québec wished its "*wood commerce to prosper*" then it was necessary "*to guarantee to [the] forest industry the integrity of its domains*" and ensure [its] "*continued supplies.*"⁴⁴⁹

While Gouin was as committed to economic development and industrial expansion as his predecessor, his approach was more prudent and mindful of the administrative responsibilities that forestry experts and industry leaders were by then expecting of Canadian governments. In keeping with the dominant views of the period concerning the need to centralize resource governance and Gouin's firm intention to develop what he qualified as the province's "*vast*" and "*inexhaustible*" resources, the administration of the public domain was reorganized in 1905 to establish the Department of Lands and Forests and the Department of

⁴⁴⁶ RMTF, 1908, p.xi

⁴⁴⁷ By order-in-council no.235, 18 May 1906, the forest reserve on the Chaudière River was created to protect against inundation and to provide a near constant water supply. See Sessional Paper no. 103 on Forest Reserves, in Session Papers for 1912 Vol.45, Part 4.

⁴⁴⁸ Act 6, Ed. VII, c. 15, Section 4, Article 1340

⁴⁴⁹ G. Piché, 1908. "The Forest Situation in the Province of Quebec," Ninth Annual Report of CFA, p.75.

Colonization, Mines, and Fisheries (Act 5 Ed. VII, c. 12).⁴⁵⁰ Two young graduates were sent to Yale University to complete the new forestry programme (Avila Bédard and Gustave Piché) and to strengthen the administrative capacity of the Lands and Forests Department. The forest (fire) protection service was created. To distance himself from the policies of his predecessor and secure higher returns for the state, Gouin abandoned the system of selling the rights to waterfalls and rivers for the production of power and other industrial purposes (a suggestion forwarded by the Colonization Commission), and replaced it with long term leasing agreements.⁴⁵¹ In order to consolidate the remaining extent of public assets and more prudently divide ungranted lands in terms of cultivation or forest reserves, Gouin ordered a temporary ban on the sale of timber limits in 1906.⁴⁵² And finally, a state-sponsored tree nursery was established in 1908, in Berthierville, to support farmers and the reforestation of reclaimed public lands.

6.5 Managing Towards Conservation: Some Concluding Thoughts

Taking advantage of the broad set of institutional changes that were initiated by his predecessors but completed under his watch, Gouin set out to achieve what everyone else had failed to do. Namely, to bring about social order through improved settler-lumberer relations, a more equitable sharing of benefits, and sustained growth in this primary sector of the provincial economy. Following in the footsteps of Simon-Napoléon Parent, Gouin believed that the solution to Québec's century-old struggle for resource rights between commercial entrepreneurs and proponents of an agrarian land use economy laid in the development of resource-centred communities, organized around the mass-production of exportable commodities. By focusing their attention on the basic requirements of the pulp and paper

⁴⁵⁰ In an address delivered to the Legislative Assembly in 1905 on his government's programme, Gouin underscored the value of the province's natural resources and reasons for dividing administrative responsibilities as follows: "*Vraiment, il y a tant de richesses d'enfouies dans nos forêts, dans nos terrains miniers, dans nos pêcheries, dans nos territoires de chasse et dans nos chutes d'eau, la tâche de développer ces ressources inépuisables est tellement vaste qu'il serait à propos de partager les attributions actuelles du ministre des terres; et c'est, je crois, ce qui sera fait avant longtemps. La question forestière mérite à elle seule l'attention de tout un département. Nos bois nous ont rapporté, l'an dernier, la somme de \$1,167,447.63. Il faut qu'avant dix ans nous en retirions \$2,000,000.*" See "Le Gouvernement Gouin et son oeuvre: onze années de progrès et de saine administration," 1916, p. 159. Quebec. Available at [http://www.archive.org/details/legouvernementgo00qu]

⁴⁵¹ See Report of the Department of Lands and Forests for the year ending June 1906, pp.xvi-xvii. The first of sale of 16 selected sites was held on June 22, 1906, but unspecified interference by the Federal Government and the reluctance of foreign investors to agree to anything short of a perfect title resulted in the sale of only three sites: Manicouagan (\$2,500/year), Manounan (\$505/year) & Sault au Cochon (\$805/year). In 1909, the sale of water powers called the Kai-Kai-Ke and Island Rapids on the Rivière des Quinze was authorized, subject to investments of \$250,000 and \$300,000 respectively to develop hydro-powers, along with the payment of fixed annual rents of \$3,001 and \$3,505. Leases were written for 75 years. See Return No. 94 in Sessional Papers for 1910.

⁴⁵² The ban on the sale of timber limits was maintained until 1914, except for sales during the years 1907-08 and 1911-12.

industry, Parent and Gouin considered that they could solve two fundamental problems with one able solution, i.e., employment. Hence, in order to provide pulp and paper manufacturers with a stable workforce, an abundant and cheap supply of resources, and an unlimited source of power, the competing land use claims of the colonization movement needed to be brought under control and the consequent migration of French Canadians from the outlying regions and rural districts of the province to the mill towns of North-Eastern United-States likewise needed to be curbed. In either case, the promise of stable employment provided the operative condition to limit the expanse of settlement onto well-timbered lands, while stemming the outward flow of migrants in search of alternative livelihoods.

In terms of natural resource management, the piecemeal approach to timber limit sales that had so far been used to allocate resource rights was no longer viable. To sustain the supply needs of the pulp and paper sector, government had to exercise greater control over land use, and improve its capacity to coordinate the allocation of both resource and water (i.e., power) rights. Given the upfront costs of pulp and paper making, long term planning was now essential and the development of a dedicated body of professional public servants, capable of carrying out such an important task was rendered crucial by necessity. However, in a context where the knowledge and skills of department officials was arguably limited and experience with such vast undertakings altogether absent, the prudent course of action was to create massive forest reserves that essentially provided the assurance needed by an increasingly voracious industry, to both maintain existing operations and stimulate further investments.

Analysis of institutional change and the factors that contributed to the development of Québec's forest resource institutions following Confederation reveals several striking features that can be clustered around two broadly defined variables. The first deals with the degree or depth of awareness of human-environment interactions, and the resulting dynamics of social and ecological system components. The second relates to the central role of government in defining the course of political-economic affairs, the distribution of costs and benefits, and the adoption or maintenance of politically motivated institutional arrangements that were not always consistent with the public's interests or the sustainable use of forest resources. Awareness of the role and importance of forests for their direct (i.e., raw

commodity value of wood) and indirect (i.e., environmental services related to watershed maintenance, drought control, climate regulation, and crop protection) utilities grew considerably between the 1870s and the early 1900s. Although concern for more complex issues such as biological diversity would take another century to develop, the recognition that forests provide services that are fundamental to the wellbeing of human societies became more broadly accepted and discussed during the late 19th century. Of related importance to the rising tide of early environmental awareness, and of greater significance for the development of sustainable forest resource governance, is the crucial distinction and detailed analytical understanding of appropriation and provisioning problems that emerged during the late 1870s and early 1880s. As detailed in the writings of Henri Joly, Benjamin Hough, and many other subsequent analysts, the struggle to find durable solutions to the widespread problem of deforestation in the Eastern half of continental United States and related decimation of Eastern Canadian pineries stimulated the search to understand the underlying dynamics of forest resource use and develop more sustainable patterns of forest exploitation. However, attempts by public officials to deal with such emerging problems fell short of the changes that were then being discussed. In the hands of government, the joint problems of overexploitation and absent provisioning efforts was addressed at first through Commissioner Lynch's forest reserve initiative which did little more than fuel the frustration of settlers and provide unlimited supply guarantees to the forest sector. And after the Conservatives lost power in 1888, the Mercier government simply struck down the forest reserves but increased the privileges of forest operators to the detriment of settlers by increasing their rights over all licensed timber limits. In short, the rights of claimants on all sides of the debate were shifted around to satisfy political expediency but the fundamental problems of overexploitation and utter absence of forest resource management or maintenance activities were left unaddressed.

Nevertheless, evidence points to emerging distinctions in the structure of the situations that different user groups (i.e., lumbermen, settlers, and farmers) and political decision-makers faced, and the development of a more nuanced appreciation of the motives and incentives that affected the choice sets of differing actors. Gradually, the picture that begins to emerge is of an evolving polity that was fully aware of the dynamics of the situation that they confronted, and the factors that affected public choice, including the concentration of

rulership prerogatives, the vote motive, and ultimately, the power and influence of economic imperatives.

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CHAPTER VII: FROM CONSERVATION TO MANAGEMENT: SUSTAINING THE GROWTH IMPERATIVE

7.1 Introduction

The idea of conservation emerged in a context of rapid industrial growth, unprecedented levels of resource exploitation, and accelerating rates of land cover change that affected nearly all of eastern United-States and Canada. Then as now, conservation meant taking only as much timber as the forest could produce on a sustained basis, while taking care to maintain the reproductive potential of the resource systems through: (i) restoration, (ii) the protection of undergrowth, (iii) fire prevention, (iv) the improvident and wasteful conversion to unsuitable land uses (e.g., agriculture in areas unsuited for such purposes), (v) the maintenance of naturally occurring variability, both in terms of structure and composition, (vi) better alignment of human manufacturing and natural reproductive capacities, and the (vi) the development of higher end-uses that could maximize social and economic returns (e.g., employment and profit) while reducing aggregate demand on the forests themselves (see Chapters IV to VI, as well as this one). Consequently, if forest resource use was to become a sustainable proposition, then user-groups and managers had to maintain demand within bounds and minimize observed appropriation externalities (e.g., overexploitation, soil erosion, flooding, changes in resource system composition, rent dissipation, increased operational and transactions costs, reductions in the size and value of timber, increased fire hazards, etc). And second, to correct past mistakes and increase productivity in managed areas, appropriators and resource owners (whether public or private) had to contribute to costs of maintaining such systems, both to stimulate near-term productivity and enhance the long-term viability of forests to support human social-ecological welfare⁴⁵³ (e.g., improve understanding of forest dynamics, planned and managed

⁴⁵³ As discussed in the previous and current chapters, evidence clearly shows that people were well aware of the provisioning and regulation services that forests provided, as well as their own socio-economic dependence on such services. The term "social-ecological welfare" is used here to translate the literal and visceral understanding of human dependence on such ecosystem services – as discussed during the late 19th and early 20th centuries – while recognizing that the use of such terms stems from 21st century scientific contributions.

interventions, fire control, reforestation where appropriate, monitoring and enforcement of regulatory measures, etc.). Then (e.g., Hough, 1880) as now (e.g., Ostrom *et al.*, 1994), the struggle to solve these two fundamental dilemmas remain crucial to any meaningful effort to manage forests on a sustainable basis.

While these and other related issues helped inform discussions on the art and science of forest resource management at the turn of the 20th century,⁴⁵⁴ the application of such principles in the context of legislative reforms was decidedly more limited. In its legal form (e.g., 1883 Vict. 46, c. 9 & 1904, Act 4 Ed. VII, c. 13), conservation merely implied: (i) the creation of forest reserves to secure the supply needs of the forest sector and reduce encroachment by settlers, (ii) fire prevention through education and the creation of “fire districts” in areas adjacent to forest reserves, and (iii) the use of diameter restrictions to sustain the growth of smaller-sized trees. As the resource needs of the pulp and paper sector increased, efficiency became a corollary of sound conservation management.

However, in a context of increasing industrialization where the standard for performance was (and remains) economic growth, it was but a question of time before the limited constraints of legislated conservation efforts would begin to hinder the expansive tendencies and growth of the forest sector. To secure the interests of industrialists, a more flexible conception was needed to increase harvestable yields while seemingly maintaining the long-term reproductive potential of forest resource systems. Science, it was believed, and the emerging field of forest science in particular, provided the necessary assurance for moving beyond the limited precautionary measures of the day (e.g., diameter restrictions) to predict resource flows over increasingly large areas and longer time horizons. In the process, experience was replaced by expertise, and the idea that a resource system could only be managed within comprehensible and comprehensive limits was summarily neglected. Even though forest operators had historically proven themselves of being incapable of exercising restraint or judgement in the use of available resources – and at scales that were considerably closer to what human’s could reliably imagine and experience – the power of scientific management lay in the promise that it would correct past mistakes and optimize resource extraction at scales that were heretofore unimagined. But whether or not operators were

⁴⁵⁴ For example, see proceedings/discussions in the Reports of the annual meetings of the Canadian Forestry Association.

correct in their assumptions and models mattered little, since government had a vested interest in maintaining the forest industry afloat (especially the pulp and paper sector) and excessive appropriation could always be compensated with fresh supplies in what seemed like an endless storehouse of pulp-wood, having already written-off any likelihood of sustaining the once majestic pineries and valuable hardwood forests of southern Quebec.

This chapter considers how forest governance institutions in Québec evolved from a conservation-centered approach to a forest management paradigm, predicated upon the belief of a knowable and objectively identifiable maximum annual allowable cut that could be sustained indefinitely. The failure of either systems to achieve sustainable and equitable outcomes, along with the critical role of government in selecting and encouraging such developments constitute the underlying narrative that ties the chapter together.

7.2 Conservation and its Limitations

In spite of the many changes introduced by Gouin during his first years as Premier, all was not going well with the revised system of public forest administration. Amongst other things, the conservation measures adopted by Gouin and his government did little to address the provisioning (i.e., maintenance) and appropriation problems, which Henri Joly and Benjamin Hough had underscored a few decades earlier, nor did it limit entry for either lumbering or settlement purposes. As the Minister of Lands and Forests, Adélard Turgeon, recognized in 1908, forest reserves were decidedly not a panacea against overexploitation by lumberers, or the steady thrust of the colonization movement:

"[I]f one may judge by the many retrenchments and the changes they are constantly undergoing, the same fate awaits them, a little slower perhaps, but just as surely."⁴⁵⁵

In the Chaudière-Appalaches region for instance, one officer of the Lands and Forests division reported in 1908 that speculation sparked by rising demand for pulp wood, easy access (railway and river), and proximity to the American market all combined to create conditions that could only be described as unsustainable:

⁴⁵⁵ RMLF, 1908, p. vii.

*"[T]he quantity of trees felled every year is enormous, so much so that they will soon have ruined whole townships. The volume of the rivers has... perceptibly decreased, the regularity of their flow is a thing of the past... The pulp wood trade has not brought about the rapid development of the new parishes or made many settlers rich. The older settlers say there is more poverty now that the fields are deserted and farming languishes... For the satisfaction and well-being of a small number, the forests have been impoverished and the baleful consequences of such deforestation will be felt before long, if fictitious settlers and speculators cannot be discovered and stopped".*⁴⁵⁶

Moreover, in spite of added efforts to better control the demands that were then being placed on cultivable lands, *"careful examination clearly show[ed] that many letters patent [were] issued on information and certificates that [were] partly erroneous and sometimes completely inaccurate."*⁴⁵⁷

In theory, lots held under location tickets were liable for the payment of dues on timber cut in excess of the ten per cent acreage that settlers were obliged to bring under cultivation.⁴⁵⁸ However, few (if any) settlers ever bothered to report the actual amount of land that was cut over or the quantity of wood that was harvested. Complicating matters further still was the fact that some 400 to 500 square miles of licensed territory were annually withdrawn from limit holders and placed in the hands of settlers for colonization purposes. While some considered this system to be an injustice (see below), others found distinct advantages since it gave firms operating near colonization townships the opportunity to purchase timber that was free (though seldom legally free) of additional duties and unhindered by diameter restrictions⁴⁵⁹ (see Table 7.1 below).

⁴⁵⁶ *Ibid.*, pp. vii-viii

⁴⁵⁷ *Ibid.*, p. viii

⁴⁵⁸ *Ibid.*, p. 203 (Appendix no. 53). As amended under Act 6 Ed. VII, c. 15, s. 5 (1905), settlers were obligated to clear ten per cent of their property in the performance of their settlement duties. This was raised to fifteen percent under Article 1632 of Act 8, Ed. VII, c. 7, s. 5 (1908).

⁴⁵⁹ *Ibid.*, p. 204

Table 7.1 The Source of Pulp Wood in 1908

| FIRM | FROM CROWN LANDS (Ft.B.M.) | FROM PRIVATE LAND (Ft.B.M.) |
|-----------------------------------|----------------------------|-----------------------------|
| Chitoutimi Pulp Co. | 4,452,000 | 4,854,000 |
| Price Bros. | 12,000,000 | 6,000,000 |
| Atkinson (Chaudière) | 1,000,000 | 10,000,000 |
| Métis Lumber Co. | 8,000,000 | 8,000,000 |
| Belgo-Canadian Pulp and Paper Co. | 15,000,000 | 8,500,000 |
| Laurentide Pulp and Paper Co. | 35,000,000 | 4,000,000 |
| J.R. Booth | 25,000,000 | 25,000,000 |

Source: Report of the Minister of Lands and Forests for the year ending June 1908, p. ix, Sessional Papers No. 3, 1908-09.

So considerable was the quantity of timber taken from private land (whether patented or in the process thereof) that the Superintendent of Woods and Forests, Paul Blouin, thought it impossible to tell just how much wood was being produced by settlers. For instance, exports of unprocessed pulp wood to the United States (which was essentially cut on private land) went from 30,360 cords in 1901 to 720,639 cords in 1908 (equal to 432,383,400 ft.B.M.), of which, only 147,159 cords was believed to have been taken from public lands.⁴⁶⁰ In addition to the export of some 344,088,000 feet of pulp wood⁴⁶¹ from private sources, another 100,000,000 feet was sold directly to local pulp and paper manufacturers to supplement their operations in 1908, and a no-less sizeable quantity of wood was likely sold to the many sawmills that pocketed the country-side and over which, the government lacked any form of control.⁴⁶² Regardless of how high these numbers might seem, it remains that no one actually knew how much wood was being cut each year (whether on public or private lands), how much of it was consumed locally, and how much was exported (see Section 7.2.1 below).

As the interest of large capital holders shifted from the square timber and sawn lumber industries to pulp and paper manufacturing, the door was left open for smaller sawmilling

⁴⁶⁰ Figures for pulp wood exports and production during this period are blatantly inconsistent. For instance, the numbers used for 1908 (i.e., 720,639 cords) are drawn from the RMLF, pages xi-xii. However, in the annual tabulated index of pulp and paper production that was introduced to the Minister's reports during the 1910s (e.g., Appendix no. 15 for the 1932-33 report) total production for 1908 was registered at 939,646 cords (of unspecified sources) of which, 683,803 or 72.7 % was exported. Moreover, official numbers upon which timber dues were charged (Appendix no. 16 of RMLF, 1908) shows that total production for the said year was equal to 359,858 cords. Along similar lines, results for 1901 were taken from a report provided by the Superintendent of Woods and Forests, Paul Blouin, printed in "Discours de l'Hon. Parent," 1903, p.25. Given that over fifty percent of pulp wood produced in Quebec was exported until at least 1914, and that, according to J.C. Langelier (Sixth Annual Report of the CFA, 1905, p.81) total pulpwood production in 1901 was 526,865 cords, it is simply impossible that only 30,360 cords were exported for that year.

⁴⁶¹ A sum equal to 573,480 cords, or 720,639 cords (total) minus the 147,159 cords taken from public lands.

⁴⁶² RMLF, 1908, p. 204.

operations to set-up shop throughout rural Québec, and since the establishment of industry was seen as a positive statement of the province's growing economic health, no effort was ever made to control the potential for over-entry that high commodity prices commanded.⁴⁶³ Consequently, when the Minister of Lands and Forests boasted of the 31 new wood processing plants (including both sawn lumber and pulp and paper mills) that were established between 1897 and 1907, attention was directed solely on the \$14,252,800 in new investments that were made possible by the policies of the Liberal government, and the estimated 8,585 new jobs that would be created in Québec's growing regional economy. Whether or not such industries could be sustained was beside the point.⁴⁶⁴

Underlying this frenzy of development was the system that essentially allowed private entrepreneurs to use public forests as collateral for private loans. Proudly, Minister Turgeon claimed in 1907, the right to use concessions to secure credit "*helped to powerfully transform immense areas that had, until then, been ignored and left almost entirely unproductive.*"⁴⁶⁵ To support the ongoing capital needs of industry, limit holders gained the right to mortgage public lands in 1912, thus setting the stage for a problem that no one likely foresaw at the time. As the Québec Association of Forest Engineers explained in their extensive review of Québec's forestry problems in 1949, up until the advent of the pulp and paper industry, the capital costs of forestry operations were minimal, but the situation drastically changed with industrialization:

"L'installation d'une usine à pâte et papier exige en soi de fort déboursés et, chez nous du moins, elle doit toujours s'appuyer sur une réserve de matière premières qui en garantit le fonctionnement pour plusieurs années. On aurait peut-être pu réaliser les capitaux nécessaires en émettant seulement des actions ordinaire ou privilégiées, et en ne grevant pas de garanties hypothécaires à long terme la forêt dont la tenure, dans l'esprit de la loi, est essentiellement précaire puisque la licence d'exploitation est, de part cette loi et les règlements est renouvelable annuellement. Malheureusement, il n'en a pas été ainsi, de sorte que tout notre domaine forestier concédé en limites et situé dans la section la plus avantageuse de la province, tant au point de vue accroissement qu'accessibilité, est depuis plusieurs années surchargé de dettes de plusieurs centaines de millions dont le public est devenu le créancier. ...[Et] cette formidable hypothèque n'a pas tendance à s'amortir...puisque l'actif qui pourrait être

⁴⁶³ Strong belief in self-regulating capacity of markets was another source of over entry, which Joly (1878) and Bouchette (1906) both criticized.

⁴⁶⁴ RMTF, 1907, p. viii.

⁴⁶⁵ *Ibid.*, p. ix

représenté par la valeur foncière des forêts concédées dans les livres de la province se trouve réduit d'autant."⁴⁶⁶

Hence, over time, the pulp and paper industry not only decimated the most productive and accessible forests in the province, it also crippled the public with debt and left in its wake a valueless asset that would take years to re-establish.⁴⁶⁷

Returning to the industrialisation strategy pursued by Gouin and his government during the first years of office, the thrust of development could not endlessly stimulate demand without incurring a similar reaction on the supply side. As manufacturing infrastructures increased, so did demand for private land hold on account of the timber it offered.⁴⁶⁸ An example of the ineffectual boundary rules used to allocate land for settlement purposes was given by one Crown Lands Agent in a letter to the then Minister of Lands and Forests, Jules Allard, in January 1910.⁴⁶⁹ The problem was again tied to the practice of submitting demands for lots held under license in the months or weeks leading up to the May 1st deadline to leave as little time as possible for the limit holder to react and remove merchantable timber.⁴⁷⁰ In one area, the Agent commented, some 50 sawmills were counted in a radius of 45 miles, "*and each of these mills needs timber*" – causing "*a host of timber buyers...seek[ing] to get the wood at any cost.*" So lucrative were the potential earnings that even priests and other community leaders were cited as being involved in racketeering schemes designed to buy timber from unwary settlers for half its market value, only to sell it back to local mills for twice the amount paid for.⁴⁷¹ And like their predecessors half a century

⁴⁶⁶ Association des Ingénieurs Forestiers du Québec, 1949. *Le problème forestier du Québec*. Montréal, Fides, bibliothèque économique et sociale, pp. 19-20.

⁴⁶⁷ These issues are discussed further in subsequent sections of this chapter.

⁴⁶⁸ RMTF, 1908, p. 204. Blouin states: "*nos terres vendues et patentées pour la culture servent surtout à l'exploitation forestière, pour la ruine de nos forêts et sans donner de revenue au trésor.*"

⁴⁶⁹ See Sessional Paper no. 26, Sessional Papers, 1912, Vol. 45, pt.4, p.6-7

⁴⁷⁰ In spite of repeated demands by limit holders, the law respecting the rights of settlers (legitimate or not) to claim land held under licence and obtain the same on the first day of May following (Article 1633 of the Revised Statutes of 1909) was left unchanged until 1924. In the mean time, petitions by limit-holders continued to flow into the Minister's office and positively responded to without ever validating the suitability of the land for agricultural purposes, as the law required. For example, see Return No. 50 in Sessional Papers for 1908: "*Copies of all orders-in-council...relating to the assurance given to certain timber license-holders that no ...farming or settlement lots would be granted for agricultural or colonization purposes.*"

⁴⁷¹ *Ibid.*, pp.1-6

earlier, modern “*pretending settlers*” actually “*care[d] nothing for the oath required by the form of application.*”⁴⁷²

7.2.1 Appropriation and Provisioning Patterns and Problems

As shown in Table 7.2 below, the gross earnings of the Lands and Forest Department increased from \$543,518 in 1881 to \$1,234,072 in 1901, and reached \$3,035,360 by 1921. While revenue would keep on increasing (save the six year period that marked the Great Depression), its overall contribution to the total revenue of the province steadily declined from an average of nearly 27% prior to 1901 to 12% in 1931 and only 6% in 1951. Square timber production (pine) steadily declined from 3,145,687 cubic feet in 1891 to just 67,154 cubic feet in 1901, and by 1922, the last recorded year for such timber, the volume produced was 7,533 cubic feet. In contrast, pulp wood production doubled from 1901 (526,865 cords) to 1911 (1,026,562 cords). It increased to 3,350,231 cords in 1929, and kept going strong after the great depression. By 1951, overall production had more than doubled the average annual production of the 1920s (i.e., 7,412,677 cords) which, according to the most respected experts of the day (circa 1920), was considered utterly unsustainable since not a single firm was able to meet its manufacturing targets using the limits it disposed of (unless fundamental changes were introduced to allow more intensive practices, which obviously does not contribute to more sustainable production – see discussion below). As for the sawn lumber, declared production volumes (since most of the production arose from private land and therefore not monitored) hovered below 600 million board feet until the 1940s, but rose sharply to 1.2 billion board feet in 1951. However, if one adds estimates of all other types of sawn wood production (e.g., shingles, lathwood, poles, posts, etc) and that which was believed to be taken private land, the Ministry of Lands and Forests considered that production for 1921, for instance, was at least 2,449,751,572 (ft.b.m.), nearly four times the amount reported in the annual tables produced for such purposes.

⁴⁷² *Ibid*, p.7. Declarations upon oath to deter illegal appropriation were initiated in the 1840s and re-introduced thereafter with the same limited success.

Table 7.2 Production Estimates

| YEAR | PULPWOOD (CORDS) | PULPWOOD EXPORTS (CORDS) | SQUARE TIMBER (FT ³) | SAWN LUMBER (FT.B.M) | REVENUES (\$) | % OF TOTAL REVENUE |
|------|---------------------|-----------------------------|-------------------------------------|-------------------------|---------------|-----------------------|
| 1871 | ... | ... | 3,983,458 | 19,857,667 | 460,480 | 32 |
| 1881 | ... | ... | 1,596,243 | 28,557,933 | 543,518 | 22 |
| 1891 | 109,333 | ... | 3,145,687 | 493,025,600 | 646,237 | 21 |
| 1901 | 526,865 | 30,360 | 67,154 | 594,892,400 | 1,234,072 | 32 |
| 1911 | 1,026,562 | 636,136 | 71,601 | 756,508,000 | 1,126,907 | 17 |
| 1921 | 1,713,123 | 601,846 | 48,624 | 640,334,000 | 3,035,360 | 22 |
| 1929 | 3,350,231 | 512,872 | ... | 625,808,000 | 5,178,511 | ... |
| 1931 | 2,940,376 | 323,507 | ... | 399,581,000 | 2,393,639 | 12 |
| 1941 | 5,103,951 | 323,301 | ... | 927,287,000 | 6,313,841 | 11 |
| 1951 | 7,412,677 | 557,274 | ... | 1,239,090,000 | 15,714,128 | 6 |

Source: Production estimates taken from Annual Reports of Minister of Lands and Forests. Total revenue percentage taken from Gow (1986, p. 394). Pulpwood production figures for 1891 and 1901 taken from presentation by J.C. Langelier during the 1901 and 1905 Annual Meetings of the Canadian Forestry Association.

Figures related to the quantity of wood taken from public and private lands, total production value, estimated returns for the State, annual yield estimates, manufacturing investments, and so forth, were of crucial importance to the province, both from a political standpoint and an economic perspective. However, because numbers bore such significance for defending one's political record, policies, management strategy, or the failure of the system altogether, the actual amount of wood that was annually cut, processed and sold can be excruciatingly difficult to ascertain. Operators were motivated to declare less than what they took, politicians and senior bureaucrats were motivated to show positive results, and skeptics or members of the official Opposition faced strong incentives to skew numbers either way, depending on their interest.

Using pulpwood production data (of unknown sources) for 1891 to calculate Québec's baseline consumption (i.e., 65,595,500 ft.b.m) multiplied by ten, to obtain an "*extreme figure*," Québec's Superintendent of Forest Rangers, J.C. Langelier, estimated that it would

take 1,103 years (in 1901) before forests were exhausted.⁴⁷³ However, given that “a spruce forest renews itself in fifteen or twenty years” when “operations are carried on in a wise and provident manner,” Langelier concluded that “spruce forests are practically inexhaustible.”⁴⁷⁴ Four years later, before the same audience, Langelier revised his predictions based on pulp wood consumption in 1901 (i.e., 316,095,000 ft.b.m) and estimated that it would in fact take 334 years to consume the remainder of Québec’s forests.⁴⁷⁵ While optimistic that such levels of appropriation could be sustained indefinitely, Langelier cautioned that when lumbermen “apprehend that they are to lose the fruit of their labour and wise husbandry, through the invasion of colonization, they quite naturally try to make the most out of the situation.”⁴⁷⁶ But as a representative of the provincial government, Langelier again failed to acknowledge the fact that the rules that allowed settler encroachment onto licensed timber berths were in fact set by government, and that failure to enforce existing regulations was not the fault of settlers, lumberers or speculators but of government itself. As the chief forester of the Laurentide Pulp and Paper Company, Ellwood Wilson, put it,

*“Government has the right at any time to open up lands under license for settlement, without in any way compensating the holder for the loss of his timber. It grants him the right to remove the timber before the date on which he must renew his license, but as the settler usually waits until within a few weeks or days of this date before making his application, the limit holder has no opportunity to remove the timber. This method of opening the land for settlement amounts to confiscation.”*⁴⁷⁷

In effect, Wilson furthered, limit holders held “no guarantee...that a change in Government” would “not result in an increase in ground rent and stumpage dues,” thus rendering his operations entirely unprofitable.⁴⁷⁸ Given the perception that “government” merely “gives with one hand and takes back with the other,” Wilson later underscored that

⁴⁷³ Langelier, J.C., 1901. “The Pulp Industry in Relation to Our Forests,” in *Report of the Second Annual Meeting of CFA*, Government Printing Bureau: Ottawa, pp. 40-41.

⁴⁷⁴ *Ibid.*, p. 42.

⁴⁷⁵ Langelier, J.C., 1905. “Forest Wealth of the Province of Quebec,” in *Report of the Sixth Annual Meeting of the CFA*, p.82. Again Langelier maintained that if Quebec’s forests were “protected against fire and prudently husbanded,” then they would be “practically exhaustless.”

⁴⁷⁶ *Ibid.*, p.83. With this admission, Langelier contradicted one of the major findings of the report he authored for the Colonization Commission, wherein he refuted claims that lumbermen tend to clear all merchantable timber from land held under licence before the same could be transferred to settlers.

⁴⁷⁷ Report of the Tenth Annual Meeting of the CFA, 1909, p. 138.

⁴⁷⁸ *Ibid.*, p. 140.

operators were understandably hesitant "*to spend money on forestry work and then have the land taken away, and the benefit of their investment and work given to some body else.*"⁴⁷⁹

But the challenge of sustainable forest resource use in Québec, and the perennial issue of inadequate efforts to maintain forest productivity went further than the problem of tenure insecurity. As a stark reminder of the challenges that continue to plague the province's forest sector to this very day, Langelier attributed the near impossible task of investing in resource maintenance to two factors. First, government did not have "*the means to carry on a system of silviculture*" that could produce appreciable results over as large a territory as Québec. And second, most of its "*public lands are in the hands of capitalists who have invested their money in forest as a business matter and who cannot reasonably be expected to adopt any new system of forest management, unless the ultimate returns are shown to be greater than those accruing from the ordinary methods of lumbering.*" Citing observations made by Professor Bernard Fernow at the 1902 meeting of the Canadian Forestry Association,⁴⁸⁰ Langelier furthered that "*the only reason for lumbermen and most private owners to adopt forestry is the financial one.*"⁴⁸¹ Unless it pays to invest in more effective and sustainable resource management efforts, few will be tempted to spend the additional resources needed to achieve such ends. While several firms such as the Belgo-Canadian and the Laurentide Pulp & Paper Companies actively sought to restock harvested areas as early as 1905,⁴⁸² Langelier believed that the practice of forestry in Québec was invariably "*limited to protection against fire and the inroads of timber pirates raiding the forest under the pretence of promoting colonization.*" Anything resembling a "*sustained yield,*" as "*considered...in Europe*" must "*be given up as impracticable, for the present.*"⁴⁸³

If "[t]he average lumberman can not be expected to go far in conservative methods, unless he contemplates a long future for his business, or is compensated by the community,"⁴⁸⁴ and government, acting in lieu of the community, did not have the means or

⁴⁷⁹ Report of the Ninth Annual Meeting of the CFA, 1908, p.49.

⁴⁸⁰ See Fernow's discussion on the financial imperative in the *Report of the Third Annual Meeting of the CFA*, 1902, pp. 110-114: "*there are many things which we know to be the right things to do, and yet we are unable to do them, because of financial limitations*" (p. 113).

⁴⁸¹ See "Forest Wealth of the Province of Quebec," p.84

⁴⁸² RMTF, 1906, p. xiii

⁴⁸³ See "Forest Wealth of the Province of Quebec," p.84

⁴⁸⁴ See "The Forest Necessities Of Canada," in *Report of the Ninth Annual Meeting of the CFA*, 1908, pp. 102-103

resources to induce more sustainable behaviours, then the widely held assumption that only public resource governance could possibly secure the long term interests of the country was indeed quite thin.⁴⁸⁵ As C.A. Schenck⁴⁸⁶ emphasized as early as 1901, since private investors are unlikely to capture the full benefits of improved sustainability, including the positive externalities of environmental services, appropriators will naturally face strong incentives to overexploit the system for their own benefit, especially if they do not bear the costs of their decisions. In other words, without proper constraints or inducements, limit holders can be expected to act upon their self-interest and limit any action that does not bear the fruit of direct economic returns:

*"[T]he gross returns from forestry practised by the commonwealth are not tangible goods only; the yield of the forest consists, to a large extent, of safety, of assistance, of insurance furnished to the people and to their industrial vocations (i.e., navigation, water supply, irrigation, agriculture, public health, and the protection of property from floods). Within the forest itself, these "indirect" blessings are scarcely ever felt. Hence the private individual owning forests does not care to produce them: the pennies saved are not saved for him. In addition, "indirect" revenue cannot be derived from the forest in many a case without curtailing the "direct" monetary revenue. Private forestry, left to itself, cannot be expected to meet the combined tasks. Where the private forests form a small percentage only of the total forest-area of a country, no harm is done by disregarding them. In the opposite case, the liberties of the private owner must be restricted with reference to the free disposition over woodlands (as was done in Europe since centuries), or else the owner must be continually driven, at the expense of the people by financial inducements, towards that forestal practice, which makes the forest a source of direct and indirect revenue. Whether it is not preferable for the government to practice forestry on its own account, rather than to enter the slippery road of inducements and bounties, is a question open since Adam Smith's time. Only thorough appreciation of the economic and politic sphere of a country [can one] solv[e] the problem in a given case."*⁴⁸⁷

While a number of firms did their best to maintain the long term perspective that is central to the application of "conservation methods" (see ongoing discussion in subsequent

⁴⁸⁵ The inherent superiority of public ownership, as a means to safeguard forests resources from the inevitable greed of self-interested actors is a dominant theme in late 19th century – early 20th century literature.

⁴⁸⁶ "The Commercial Side of Governmental and Private Forestry: Factors Underlying Conservative Utilization," in *Report of the Second Annual Meeting of the CFA*, 1901, pp. 53-59. In his analysis, Schenck goes on to state that: *Forestry investments, like those of railroads and insurance companies, are as a rule long time investments. The forester is compelled to look far ahead into the future. In many a case the teachings of history throw light into the darkness of coming events. I have no time to dilate on the indirect utility of the forest, of the forest as a healer, of the forest as the regulator of water and navigation, of the forest as an employer to the wage-earner. The indirect utility of the forest is apparently most highly appreciated where no forest exists. In the United States millions of dollars are spent for raising forests in the treeless regions, and scarcely a cent for preventing forests from losing ground on soil fit for timber production only.*

⁴⁸⁷ *Ibid.*, pp.57-58.

sections), the inconsistency of institutional interplay, created by the dominant imperatives of industrialization and economic growth and the corresponding challenge of competing land use claims by different user groups, ultimately rendered the possibility of sustainable resource use impracticable.⁴⁸⁸

The other notable challenge to sustainability was the permanent problem of rule enforcement. In terms of colonization and fire protection, legislative measures were essentially considered adequate to achieve their intended objectives if “*thoroughly observed*,” as Langelier put it.⁴⁸⁹ The problem however, was that “*when it comes to ... strict enforcement, political influence interposes and the best interest of the province is removed to the back ground.*”⁴⁹⁰ More often than not, forest rangers were selected because of their political connections, as opposed to their knowledge and willingness to work in adverse conditions. Consequently, enforcement left much to be desired. Diameter restrictions on cut timber were difficult to enforce due to the inability of most forest rangers to distinguish tree species, and the most basic duties of monitoring and enforcement were left unattended because the said rangers seldom if ever visited lumbering operations.⁴⁹¹ In fact, forest rangers had so little credibility amongst jobbers,⁴⁹² lumbermen, and settlers that the population as a whole openly mocked them:

*“There has been no attempt to enforce laws in the back districts. The settlers and the rural population are absolutely defiant of the laws.” Consequently, “it is impossible to get reliable and honest men who will go out there and do their duty [...]. Most...men get very small salaries, ... [have] an enormous territory to cover, ..lack train[ing],” and “lack ...sympathy among the people.”*⁴⁹³

⁴⁸⁸ For a detailed discussion on the problems of fit, interplay and scale applicable to the institutional dimensions of environmental change, see Oran Young (2002).

⁴⁸⁹ Langelier, J.C., 1905. “Forest Wealth of the Province of Quebec,” in *Report of the Sixth Annual Meeting of the CFA*, p. 85. From the report of the Colonization Commission, Langelier cites: “*The staff charged with this service are too subject to political influences to perform their duties with the energy and independence which alone can secure its effectiveness. In several cases political influence has caused the post of forest ranger to be entrusted to men who have neither the activity nor the ability required to properly fill a position upon which depends the preservation of the greatest source of wealth of the province.*”

⁴⁹⁰ *Ibid.*

⁴⁹¹ RMTF, 1906, p. xiv.

⁴⁹² “Jobber” was a colloquial term used in reference to the contractor or foreman hired by limit holders to carry out harvesting operations. The term gained widespread acceptance in both English and French in the later half of the 19th century (see MacKay, 2007, pp. 153-157).

⁴⁹³ See Wilson, Ellwood (1909) “Forestry and Lumbering in Northern Quebec,” in *Report of the Tenth Annual Meeting of the CFA*, p.141.

Moreover, decried Ellwood Wilson, “government officers [i.e., cullers] charged with the duty of seeing to the following of these rules,” had such “insufficient knowledge and training” and were “so over burdened with work that they [could] not look out for the government interest.”⁴⁹⁴ Obligations such as the duty to cut timber no more than a foot from the base of the tree or to account for all trees used in logging operations (i.e., timber used for skids, corduroy roads, bridges, lodged in trees, or left on the ground) were left unattended.⁴⁹⁵

Hence, the underlying threat to forest conservation was not so much the fact that anyone could obtain settlement rights to areas that were utterly unfit for cultivation but that they were explicitly allowed to do so by the very absence of any effective system of public administration and the lack of investment to support existing measures.⁴⁹⁶ For instance, to cover an area equal to 63,000 square miles in 1903, the government employed 99 fire rangers at the cost of \$17,000 in salaries and expenses (half of which were paid by limit-holders), while the receipts from woods and forests brought to the provincial treasury \$1,241,814 for the same year.⁴⁹⁷ However, Wilson contended that the problems went far deeper since the Department did not appear to have any definitive form of administration that could provide even the semblance of a coordinated effort on the part of government. There was “no definite plan...for selecting lands for settlement” and “no effort to skilfully or even carefully examine soil conditions.” Instead, “lands are allotted practically wherever the intending colonist wishes, and this ... enabled many speculators” to take up land for the timber itself. In sum, the “[l]aws regarding settlement conditions and duties [were left] unenforced, certificates [were] falsely sworn and... the lack of trained and reliable rangers nullifie[d]” the efficacy of “rules and regulations.”⁴⁹⁸

⁴⁹⁴ *Ibid.*, see p.140.

⁴⁹⁵ *Ibid.*, Wilson states: “The Government have a regulation that the stump can be cut no higher than one foot from the swell of the roots, and you can go anywhere between the Lake St. John region and the head of the Mattawa River, which is almost to the head of the Rideau River, and you won't find a stump in the cuttings two years after that is under three feet high, and in the Lake St. John region you will find stumps five or six feet high.”

⁴⁹⁶ See *Report of the Sixth Annual Meeting of the CFA*, 1905, pp.88-89. William Little argued that “the plea made by [succeeding] Crown Lands Commissioners” for greater control over the activities of settlers was nothing more than “an excuse for their imprudent disposal of timber limits at the inerest trifle of their value” and that of the “careless lumbermen that conduct their operations in a wasteful and reckless manner.”

⁴⁹⁷ See “Forest Wealth of the Province of Quebec,” *Report of the Sixth Annual Meeting of the CFA*, 1905, p. 86.

⁴⁹⁸ See Wilson, 1909. *Report of the Tenth Annual Meeting of the CFA*, p.139.

7.2.2 Emerging Threats to Sustained Productivity

There is little doubt that rising demand for lumber of various size and quality, along with the development of the pulp and paper sector ultimately gave renewed vigour to the decades-old struggle for resource rights between limit holders and smallholders. In effect, institutional dynamics during this period were largely conditioned by the competing interests of these two broadly defined user groups, along with the interposition of government prerogatives. However, as pressure on public forests mounted, early assumptions regarding the expected behaviour of forest resource systems began to unravel, casting doubt on the assumed inexhaustibility of Québec's pulp forests and the efficacy of existing regulations to meet long term supply needs.

7.2.2.1 The Dynamics of Northern Forests

Regardless of whether timber-harvesting activities were performed by settlers or by the jobbers hired for such purposes, the pressure exerted on Québec's forest brought about the progressive retreat of the valuable softwoods and the expansion of the relatively valueless and fast growing hardwoods.⁴⁹⁹ As the provincial forester and soon to be Chief of Québec's Forest Service, Gustave Piché, summed up the situation before the 1908 meeting of the Canadian Forestry Association, lumberers:

*"are obliged to work always farther and farther from the basis of operation, [and] regions formerly neglected on account of the difficulty of access are now exploited. In spite of the introduction of substitutes, such as spruce for pine, etc., or the improvements of transportation methods, the price of wood rises steadily. It is undeniable that wood is becoming scarce."*⁵⁰⁰

In the absence of any deliberate planning, management, or foresight regarding the actions of lumberers and their effect on the reproductive dynamics of economically valued resource units, the systematic overexploitation of Québec's primeval forests invariably changed the structure and composition of the forest ecosystems colonists and lumberers first

⁴⁹⁹ Hardwood regeneration in cut-over areas is naturally dominated by fast growing shade intolerant species such as poplar, aspen and birch, trees which have limited value for construction purposes (due to their brittleness & proneness to decay) and pulp and paper manufacturing (due to weak links between fibers). The other point of interest is that hardwoods had only limited floatability, and since rivers remained the predominant mode of transportation up until the mid 20th century, the losses incurred during river drives was considerably more important for hardwoods than for softwoods.

⁵⁰⁰ Piché, C.G., 1908. The Forest Situation in the Province of Quebec, in *Report of the Ninth Annual Meeting of the CFA*, p.75.

encountered. Although concern over the rapid disappearance of Québec's majestic pineries helped fuel discussion on forest conservation during the 1870s and 1880s, no effectual means were ever instituted to curb wasteful practices, such as timber squaring, or to limit appropriation rates more extensively than the somewhat useless and seldom enforced diameter restrictions (see below). By the early twentieth century, the feeble fight to save the province's pineries ended, and the valuable (shade tolerant) hardwoods (e.g., elm, beech, walnut, ash, hickories, etc) were essentially cut-over and sold to the British Market, or rapidly consumed by settlers for construction, cooking and heating.⁵⁰¹ As such, other than collecting applicable dues, authorities essentially turned a blind eye to the few remaining square timber producers and rapacious sawn lumber industry that proceeded to deplete whatever pine and valuable hardwoods they could find.

Hence, the focus of conservation during the early decades of the twentieth century had little to do with pine. Instead, what commanded the attention of political, economic, and scientific arenas was the so-called pulp forest, and black and white spruce in particular (i.e., *picea mariana* & *glauca*).⁵⁰² In a context where the territory under public administration was simply too extensive for authorities to manage in any meaningful way, and industry – too insecure as it was relative to its annual titles, indebtedness, and susceptibility to political change to expend additional resources for the maintenance of public forests, the only cost-effective approach was to safeguard unlicensed portions of the public domain (hence the forest reserves) and require the strictest economy in the use of allocated berths. Nevertheless, the proposed strategy failed to address many important issues that were then emerging. Among the issues that were then gaining widespread attention were: the cause of forest fires; the response of forest systems to selective high grading; the need for adaptable and variable management strategies; the dominant patterns of forest regeneration; and the limited value of diameter-based restrictions as a means of ensuring long-term sustainability.

⁵⁰¹ Overtime, the loss of valuable hardwoods and inadequate efforts to regenerate such trees became a central preoccupation of succeeding governments, yet, as reported in the 2004 commission for study of the public forests, no sustained effort to correct the situation was ever implemented.

⁵⁰² Red spruce, *picea rubens*, was likewise used but not differentiated by users or government until the 1920s.

7.2.2.2 Forest Fires

Forest fires were attributed to numerous causes, including settlers, hunters, fishers, river drivers, sparks from railways and firebrand from the smoke stacks of train engines, and occasionally, lumbermen themselves. But for the longest time, forest fires were more or less blamed on the ill-advised actions of settlers or the deliberate acts of fraudulent speculators. However, as lumbermen ventured further and further away from settlement, it soon became apparent that "*forest fires [tended] to follow the lumberman and [were] a direct result of the condition he [brought] about in the woods.*"⁵⁰³ In the absence of any market for the branches and debris produced through conventional logging operations,⁵⁰⁴ lumberers simply left the refuse of their industry scattered on the newly exposed forest floor or placed them in generous heaps along the pathways created to remove harvested timber. By leaving the resinous crown, branches, and remnants of squaring activity to dry in the sun, lumbermen created a tinderbox of fuel ladders ready to ignite and cause the massive crown fires that were being reported by the 1860s (see Chapter V). In comparison, the canopy in virgin pine forests was so thick, lumberman and conservationist William Little explained before the Canadian Forestry Association, that there was barely "*enough loose wood lying about to make a fire hot enough to cook your dinner, so that even if a fire were started...[it] could do but little damage to the timber.*"⁵⁰⁵ By opening roads and paths to access timber, by preparing beds of small trees to protect the fall of giant pine, and by leaving the unwanted parts to bake in the sun, lumbermen created ample supplies of fuel along with channels for the wind to blow and breath life into any spark that may inadvertently fall onto the site.⁵⁰⁶ Whereas the old pineries "*had withstood the risk of fire and tempest for several centuries, and under like conditions would do so till it died of old age,*"⁵⁰⁷ the passing of lumbermen likely accelerated the frequency and severity of forest fires in the pineries and mixed forest regions of southern Québec.

⁵⁰³ Clarck, J.F., 1905. "The Forest as a National Resource," in *Report of the Sixth Annual Meeting of the CFA*, p.105

⁵⁰⁴ *Ibid.*, p. 104

⁵⁰⁵ *Report of the Sixth Annual Meeting of the CFA*, 1905, p.89.

⁵⁰⁶ *Ibid.*, p. 90.

⁵⁰⁷ *Ibid.*

In the spruce and fir forests of the boreal north, forest fires were blamed on the "Indians."⁵⁰⁸ However, as Robert Bell of the Geological Survey of Canada reported at the first annual meeting of the Canadian Forestry Association (1900), sedimentary evidence collected north of the 50th parallel pointed to a regularity of forest fires that predated any known human presence or influence on the system.⁵⁰⁹ Further, the nearly ubiquitous presence of jack pine (*Pinus banksiana*), a fire-dependent tree with serotinous cones that only open when exposed to fire, suggested to Bell that such adaptations necessarily evolved over time and in response to naturally occurring phenomena, which he posited could only be attributed to natural causes such as lightning.⁵¹⁰ In his travels through the northern boreal forest of Ontario, Clark reported that there was not a square mile of forest that did not show evidence of past fire activity. Samples of Banksian pine (now known as Jack Pine, *Pinus banksiana*) taken near Mattagami showed that at least four severe fires had occurred in the area prior to 1905 (over a 66 year period).⁵¹¹ Yet in spite of such evidence, forest fire regulations in Québec continued to focus legislative action on everything but the consequences of lumbering activities, which arguably made remaining stands more vulnerable to fire hazards. The forest reserves, like the fire districts that were initially introduced by Commissioner Lynch in 1883, were thus largely viewed as "firewalls" which, if properly applied, would help protect Québec's forest domain from the imprudent activities of ill-informed settlers or the illegal doings of speculators.⁵¹²

7.2.2.3 Age Structure and Forest Regeneration

Another widely held assumption in the early decades of the 20th century was that spruce trees were relatively young (i.e., less than 100 years old) and regeneration took place in predictable cycles of fifteen to twenty five years⁵¹³ – assertions that were altogether

⁵⁰⁸ For example, see previous citations of Clark (1905) and Langelier (1901, 1905)

⁵⁰⁹ It should be noted that efforts to understand the dynamics of mixed and boreal forest systems was just emerging at the turn of the twentieth century. In this context, the work of Dr. Bell on forest fires; the idea that lightning might have a role to play; that forest fires were a naturally occurring phenomena; and that some species were fire-dependent – all were new ideas that challenged the way forests had so far been considered.

⁵¹⁰ Bell, R., 1900. "Canada's Northern Forests," in *Report of the First Annual Meeting of the CFA*, Ottawa Government Printing Bureau, pp. 12-14.

⁵¹¹ See Clark (1905, p. 108). The author however, considered that most of these fires were likely caused by the 'indians'.

⁵¹² Fire-districts (Act 58 V., c. 19, s. 2) were never repealed and were reiterated in Article 1647 of the revised statutes of 1909 (Act 8 Ed. VII, c. 7, s. 5).

⁵¹³ For example, see Langelier, J.C., 1905. "Forest Wealth of the Province of Quebec," in *Report of the Sixth Annual Meeting of the CFA*.

different from the experience of pulp and paper manufacturers.⁵¹⁴ Taking stock of how forest resources were used over time and the way in which appropriators traditionally operated in Québec, Gustave Piché summarized the underlying pattern of resource use in the province and its effect on forest system change in rather stark terms:

*"Forest exploitation has thus far neglected the future of the forest; one section has been completely cleared, then another has been taken. There was never any care as to future cuttings. Thus, when the best of our pines were removed, not a single seed tree was left standing to ensure the reproduction of the species. As a result, the forest has transformed itself, in many places, into a spruce forest. Since the spruce has come into demand the same methods have been pursued, and now we see this valuable species being replaced by fir and hard woods."*⁵¹⁵

The effects of such selective high grading on the capacity of Québec's forest resource systems to regenerate themselves was the object of a compelling study in 1918 by C.D. Howe of the University of Toronto.⁵¹⁶ Compiled with the assistance of Ellwood Wilson of the Laurentide Pulp and Paper Company using a strip-method survey of various sections of forest in the southern portion of the St. Maurice valley, results of the study revealed that the original forest cover in the region had two distinct layers:

*"The lower storey was a mixed forest of yellow birch, maple, spruce, and balsam, in abundance in the order named. Towering 50 or 75 feet above this were scattered giant pine trees from 3 to 6 feet in diameter, from 100 to 150 feet high, and probably 200 to 300 years old. Had there been only six such trees to the acre, they would have dominated it, but there were probably more, but not sufficient, however, to form a complete crown cover in this upper storey, except on rocky ridges. In the latter situations we often found from 20 to 30 big pine stumps to the acre, evidently indicating a pure stand. To one flying over the region at that time in an airplane, it would have appeared as a 'black' forest, that is, one in which the pines predominated over the hardwoods. Passing to-day the conditions are reversed; it is a 'green' forest, that is, one in which the hardwoods predominate."*⁵¹⁷

⁵¹⁴ In the St. Maurice watershed where the Laurentide Pulp and Paper Company operated, Ellwood Wilson alarmingly pointed to how lumbermen were "rapidly turning this whole territory into a balsam forest." See Report of the Ninth Annual Meeting of the Canadian Forestry Association, 1908, p. 48.

⁵¹⁵ Piché, C.G., 1908. "The Forest Situation in the Province of Quebec," in *Report of the Ninth Annual Meeting of the CFA*, p.75.

⁵¹⁶ Howe, C.D. 1918. Forest Regeneration on Certain Cut-over Pulpwood Lands in Quebec, in *Silviculture: Forestry Pamphlets*, Vol. XI, Reprinted from the Ninth Annual Report of the Commission of Conservation, Ottawa, 1918, CIHM no. 82804; Available at [<http://www.archive.org/details/pamphletsonsilviculture>].

⁵¹⁷ *Ibid.*, pp. 6-7

Howe posited that the original pine cover was probably removed around the mid-nineteenth century,⁵¹⁸ giving an opportunity to the spruce dominated mixed undergrowth to flourish:

Our growth studies show that all the spruce trees since removed by lumbering operations were present in the original forest beneath the pine trees. They were at least 6 inches in diameter and about 100 years old when the pine was cut [circa 1855 - see Chapter V]. Many lumbermen think that the second cutting on an area is from young trees, which have grown since the last cutting. The area which we are describing has been cut two or three times in the last 30 years and the youngest spruce cut was over 100 years old, most of the trees being more than 150 years old. This is the length of time that it takes to make a spruce forest from seed to pulpwood size, when the spruce grows up in company with hardwoods.

Howe's investigation confirmed earlier observations showing that the average age of spruce cut in the first decade of the twentieth century was no less than 150 years in eastern Canada. As Professor Fernow bluntly put it:

*"It needs to be driven home to every Canadian that in spite of foolish assertions to the contrary and exceptional cases,... it takes in the average not less than 100 years to make a 12 inch tree, and the majority of the [pulp] trees which the lumberman cuts have required 150 years and more to make."*⁵¹⁹

Consequently, if a tree with a 9 inch diameter stump could be over 200 years old in one place and a 14 inch tree in another could be half as old, then it followed that the diameter-based appropriation rules were more or less arbitrary and could not be used as reliable indicators for maintaining the reproductive capacity of valued resource stocks. As Fernow explained time and time again: *"The idea of 'renewal' in 15 to 20 years, where the cut is down to 7 inches, is ridiculous. What is meant is, that after 15 or 20 years some and enough of the left over trees will have attained a diameter which it pays to cut."* Further, it *"stands to reason where spruce is culled and hard wood left, it is hard wood that renews and not spruce. Your government [i.e., Québec], having control of the forest, should certainly limit*

⁵¹⁸ Howe's assessment of when pine in the area was first removed is consistent with historical records. As shown in Chapter V, the area was first put up for sale in 1852 by Commissioner Joseph Cauchon. See Annual Report of the Commissioner of Crown Lands for the Year 1856, JLAC., 1857, Appendix 25, section on Woods and Forests Branch, as well as the Notice from the Crown Lands Department, dated October 15th, 1852, Canada Gazette no.: 593.

⁵¹⁹ Fernow, B. E., 1909. "What We Want," in *Report of the Tenth Annual Meeting of the CFA*, pp. 76-77. Fernow reported that observations taken in New Brunswick, showed that spruce trees with an average diameter of 9 inches were between 150 and 200 years old.

the diameter to which trees may be cut, but the size must be variable according to local conditions, for even 9 inch trees would not stand up under the winds, if left standing singly without the support of neighbours."⁵²⁰ Diameter restrictions simply did not and could not "assure any reproduction of young seedlings" and as such, could not be treated as anything that would resemble sustainable forest resource use.⁵²¹ But more fundamentally, his insistence was on the fact that forests are complex entities,⁵²² and that the rate of growth of any particular species varies according to the time and place exigencies of the grove or stand wherein it is found, soil and climate conditions, exposure or aspect, age structure, root and crown competition, and the naturally occurring disturbance dynamics of a given local. "It must be realized" Fernow insisted,

*"that no general rule as for instance a universal diameter limit, or even of the burning of debris, will work satisfactorily in all cases. Each case requires specific consideration and description," such that "proper working plans should be made and followed, i.e., forestry practiced from the start."*⁵²³

In short, lumbermen and foresters had to learn to "cut down to what nature intended we should cut to," and not what governments or business leaders arbitrarily required or wished at any given moment in time.⁵²⁴

However, what alarmed early forest scientists even more was the realisation that the harvest of merchantable spruce and balsam (i.e., 7 inch diameter) did not favour the release of the abundant seedlings of the same species but instead favoured the transition of the forest towards a less desirable equilibrium dominated by either fir, mixed deciduous composition or a nearly pure hardwood stand – depending on the composition of the undergrowth and the severity of the prescribed cut. In summarizing the effects of diameter-based selective logging practices and low stumpage prices, before the Second British Empire Forestry Conference of 1923, Howe pointed to four main consequences. Such practices caused: 1) the removal of the best available subjects and survival of the least fit; 2) the filling-in and overcrowding by

⁵²⁰ See Report of the Third Annual Meeting of the CFA, 1902, p. 103

⁵²¹ *Ibid.*, p. 111

⁵²² On this point, Bouchette (1906, p. 249) put forth the idea that forests need to be considered as living organisms and not simply an aggregate assortment of timber: "La forêt n'est plus seulement un élément économique et social, c'est un organisme doué d'une vie collective distincte de chaque arbre qui la compose."

⁵²³ Fernow, B. E., 1909. "What We Want," in Tenth Annual Report of the CFA.

⁵²⁴ See Report of the Third Annual Meeting of the CFA, 1902, p. 112.

hardwoods; 3) the crowding out of more valuable species in the regeneration; and 4) the predominance of balsam fir in the regeneration.⁵²⁵ As lumbering operations were renewed in favour of spruce towards the end of the 19th century, harvesting in the St. Maurice valley drastically reduced the overall basal area occupied by the dominant red spruce from 25 to 5 square feet per acre, with similar declines in balsam. The result, from an economic perspective, was that *"the capital stock and, therefore, the earning capacity of those areas [was] only one-fifth of what they were originally,"* thus reducing the marginal benefit of any future operation. The prospect of a long term recovery did not appear much better, for less than one per cent of spruce seedlings observed per acre (i.e., 635 seedlings) and only a third of a percentage (i.e., 0.3%) of the balsam seedlings (i.e., 3972) appeared to reach maturity after merchantable stock were taken out.⁵²⁶ In sum, without any serious effort to open-up the hardwood undergrowth by thinning or better yet, through the use of hardwoods in economically rewarding activities, the idea that another viable *"crop of spruce"* might be produced on such lands within a relatively short time period was, as Howe put it, simply *"hopeless."* For *"[n]o private concern could afford to wait 50 years, paying annual rental for that length of time for the sake of a few cords of pulpwood."*

The problem of deciduous regeneration in dominant softwood stands was not unique to the southern portions of the province. In colder and harsher conditions, lumbermen were experience similar regenerative trends (i.e., balsam fir, birch and poplar as opposed to spruce), which prompted some to argue, as early as 1902, that the best strategy for stimulating the growth of spruce might be to simply cut everything clean and scour the surface with fire.⁵²⁷ This was also the conclusion that Howe and Wilson reached: *"If nature is really against us, it might be the best thing to cut every acre off clean, if a market could be found for the hardwoods, and start the spruce anew by planting."* But planting was a costly endeavor, and in a system where the principle motive of operators was the financial one, as Langelier and Fernow surmised, and resource rights were granted through annual licensing agreements, few were those who were willing to invest in the maintenance of public forests.

⁵²⁵ See Second British Empire Forestry Conference, 1923. Proceedings and Resolutions. F.A. Acland, p. 147.

⁵²⁶ Howe, 1918.

⁵²⁷ As Professor John Macoun of the Geological Survey of Canada put it during the third annual meeting of the CFA: *"Why not cut it all down...and clean off the ground with a fire or two fires, and then let it alone, and you will get a new forest and a valuable one. I am quite sure that we will come to it, and we will agree that complete denudation is the only hope."* See Report of the Third Annual Meeting of the CFA (1902), page 113.

The notion that regeneration could be improved through variable cutting patterns that maintained undisturbed (or slightly thinned) stands in and around cutover areas was an idea that had yet to germinate. And pre-commercial thinning was simply too expensive to consider.

7.2.2.4 The Search for Efficiency and Sustainability

Until the 1920s, the favourable economic circumstances created by the steadily rising value of pulp led several influential manufacturers in Québec to seek ongoing improvements in the productivity of forest sections held under license, and the development of technologies to improve the efficiency of their operations. Unfortunately, as the Manager of the Laurentide Pulp and Paper Company Lorne McGibbon decried, few manufacturers could be motivated to adopt such strategies because Canada as whole “*was not pursuing a proper policy for the preservation of her forests,*” a policy that would incite operators to get “*the best possible results.*”⁵²⁸ By allowing exports of unprocessed pulp wood or the production of pulp without the manufacture of paper and other higher valued goods, governments at the provincial and federal levels were not encouraging the development of more sustainable patterns of resource use or inciting investments in processing technologies to capture a greater share of available rents.

The relevance of McGibbon’s criticism is best understood by considering the returns of pulp and paper products at the onset of the early 1900s. In 1903, the average value of a cord of wood shipped from the Eastern Townships to the United States was \$3.50 per cord, and in 1907, \$6 to \$7.00 in the rough, or \$8 to \$10.00 when peeled. But if the same cord was converted into pulp, it could fetch \$20.00, \$45 if turned into newsprint, and \$50 to \$100 for paper of the highest qualities.⁵²⁹ Given, as discussed earlier, that the most important production factor was the cost of raw materials, some firms considered that the long term stability of their enterprise ultimately depended on their ability to extract the maximum amount of benefit from each unit of resource, and to further maintain or enhance the productive capacity of the forests held under license. Already in 1901, Langelier reported that

⁵²⁸ McGibbon, D.L., 1902. “The Pulp Industry in Canada,” in *Report of the Third Annual Meeting of the CFA*, p. 91.

⁵²⁹ Biggar, E.B., 1908. Canada’s approaching peril: The forest a necessity in regulating water powers and sustaining agriculture; warnings from the history of dead and dying nations; the unrestricted export of pulpwood a menace [sic] to the country. CIHM no. 76263, p. 11

manufacturers in the Mauricie region had begun building integrated systems using the waste from sawmills in the production of pulp, thus increasing the productive value of their forests by “*without in any way hastening their exhaustion.*”⁵³⁰ While Langelier believed that the adoption of such systems would help ensure that forest supplies were maintained “*ad infinitum,*” what he and most of his contemporaries consistently failed to realize or admit was how quickly demand for wood-based products increased and how this affected the capacity of manufacturers to maintain the productive output of forest resource supplies.⁵³¹ As Fernow put it:

*“Governments...have acted in the belief that this wealth was inexhaustible and that... no concern need be had as to a conservative management... [What] they did not realize is how rapid the growth of the world and of the requirements of modern industrial development would be, and how slow the growth of trees.”*⁵³²

Concern for the future did however exist, and among those who worried about the continued supply of raw forest timber were those who depended most heavily on such resources. The attitude of progressive pulp and paper manufacturers in Québec during the early 1900s was clearly laid out by one of its leading advocates, Carl (Charles-Christopher) Riordan, during the 1909 meeting of the Canadian Forestry Association.⁵³³ As “*industrial institutions*” that depended on the use of natural resources, pulp and paper manufacturers always needed to “*consider immediate profits in appropriating and exploiting these resources.*” However, once short-term needs were “*provided for,*” they had to operate their resource holding “*to perpetuate the supply.*” In this sense,

*“[t]he paper and pulp industry has more need of conservative forestry methods than any other industry that uses... forests commercially, because it has the largest investment per quantity of timber used,” an investment “that is less movable than any other wood-using industry.”*⁵³⁴

⁵³⁰ See Langelier, J.C., 1901, “The Pulp Industry in Relation to our Forests,” in *Report of the Second Annual Meeting of the CFA*, p. 46. Langelier estimated the gain in efficiency to be somewhere around 20%.

⁵³¹ For instance, exports of Canadian pulp wood for use in American mills increased by 47% between 1900 and 1905, while consumption of pulp wood by Canadian manufacturers increased by 102 % in quantity and 150% in value. See Biggar, 1908, p.8

⁵³² Fernow, B. E., 1909. “What We Want,” in *Report of the Tenth Annual Meeting of the CFA*, p.76.

⁵³³ See Riordan, C. 1909, “The Attitude of the Paper Manufacturers towards Conservative Forestry Methods,” in *Report of the Tenth Annual Meeting of the CFA*, p. 132.

⁵³⁴ *Ibid.*

The Union Bag and Paper Co., the Riordan Paper Mills, and the Laurentide Paper Co., all employed trained foresters and spent “*considerable money in thoroughly investigating their timber resources and everything to do with their development.*” These firms began inventorying their timber reserves long before the practice became a legal requirement during the 1920s.⁵³⁵ Trees to be cut were marked in advance and rules were adopted to eliminate waste and maximize the use of every “*product of the forest.*”⁵³⁶ However, in spite of their best intentions, industry efforts to improve the efficiency and sustainability of their operations were soon confronted with the incompatible nature of “*government regulations*” that interfered “*to some extent with the carrying out of systems of timber management based on [their] forestry investigation.*” For instance, Riordan reported, regulations did “*not permit the leaving of mature trees in an area cut over, although some of them are necessary for seeding.*” They did not allow “*the cutting of trees below a certain size on the stump although in many places trees reach maturity below this size and sometimes even reach their maximum growth.*” And they did “*not permit the slashing of timber that [was] of no value commercially,*” even though this would have limited the ‘greening’ of cutover forests (i.e., the transition from softwood to hardwood-dominated forest systems).⁵³⁷

7.2.3 Finalizing the Conservation Agenda

To address the wide range of concerns that were then emerging, Gouin and his government instituted the provincial Forest Service in 1909 to monitor and control forestry operations throughout Québec, both on lots acquired by location tickets and in areas held under license to cut timber. Placed in the hands of Gustave C. Piché, the new service was also tasked with exploring unsurveyed land, classifying soil for colonization purposes, and carrying out silvicultural studies, including experiments with reforestation work.⁵³⁸ The territory was divided into 14 forest districts and each placed under the care of a trained forest ranger. To strengthen the government’s long term effort to improve forest resource management, a special fund was created to finance the creation of a forestry school, *l’École d’arpentage et de genie forestier à l’Université Laval*, and a library was created to support

⁵³⁵ See “2e Rapport annuel du service forestier,” RMTF, 2010, pp. 52-53.

⁵³⁶ See Riordan, 1909, *The Attitude of the Paper Manufacturers*, p. 133.

⁵³⁷ *Ibid.*, p. 134

⁵³⁸ See “2e Rapport annuel du service forestier,” RMTF, 2010, pp. 42-57.

the work of the Ministry of Lands and Forests. As Piché proudly concluded in his second annual report as Chief of the Forest Service: "*Une nouvelle ère commence.*"

In terms of legislative changes, Québec finally passed an order-in-council on April 26, 1910 (exactly ten years after Ontario had done the same) decreeing that from the First of May, 1910, "*all timber cut on Crown Lands... must be manufactured in Canada, that is to say, converted into pulp, or paper, deals or boards, or into any other article of trade or merchandise of which such timber is only the raw material.*"⁵³⁹ The revised statutes of 1909 corrected some incongruities relative to the allocation of lots acquired through location tickets by granting the Minister the authority to decide where future settlements would be authorized.⁵⁴⁰ Together with the creation of some twenty township reserves in 1911 (varying in size from 2,700 to 27,000 acres for a total of 267,709 acres) to support household needs in settlements or communities that no longer had access to private supplies, improved fire surveillance and control, and increased vigilance by the newly appointed forest rangers, the government managed to subdue settler encroachment on existing timber limits, but not remove it.

While Piché's initial intent was to improve existing methods of exploitation to make the utilization of the trees as complete as possible, and the development of site-specific management plans to ensure "*the renewal of our forests,*"⁵⁴¹ the inability of the newly created Forest Service to direct such planning, at this early stage in its development, compelled the Ministry of Lands and Forests to adopt a more prudent course of action based on the idea of "*conserv[ing] what was left of the forests, and ...induc[ing] limit holders and settlers to employ more conservative methods of lumbering.*"⁵⁴² Like the tree nursery that was established in 1908 "*as an object lesson to farmers,*" it was felt that the more important task of the Service was "*to protect the immediate crop*" rather than "*to plant trees [that would]*

⁵³⁹ As introduced, fully squared timber and railway ties were considered as being manufactured, whereas waney and board timber were not. Waney timber was adopted as the method of choice during the 1870s for squaring, and consists in following the natural circumference of the bole of a tree during the squaring process, thus leaving more wood on each tree, helping to reduce unnecessary waste.

⁵⁴⁰ The previous statutes (1904) allowed land agents to sell any parcel of land categorized as "lands suitable for cultivation" (Article 1268a) regardless of whether it was held under license to cut timber or not. The revised statutes of 1909 were amended (Act 9 Ed. VII, C.24) to allow the Minister to determine those portions of the territory that should be opened for settlement, provided "there is no contestation" of such allocations by limit holders.

⁵⁴¹ Piché, C.G., 1908. The Forest Situation in the Province of Quebec, in Ninth Annual Report of the CFA, p.75

⁵⁴² Piché, C.G., 1910. Conditions in Quebec, in Eleventh Annual Report of the CFA, p. 72.

mature in a century."⁵⁴³ In essence, the conservation of forest resources was viewed as an intermediary step towards the actual management of crown forests. Until trained foresters from Laval University could be hired by the Forest Service and the industry, to strengthen their respective capacity, the strategy pursued by the government essentially centred on monitoring and enforcing applicable appropriation rules (i.e., diameter restrictions, timber dues, ground rents, and in-country manufacturing requirements).⁵⁴⁴

7.3 From Conservation to Management: The Political Economy of Overexploitation

While there is little doubt that the Forest Service brought much needed rigour to a system that more or less provided *carte blanche* to anyone holding a location ticket or a license to cut timber, the conservation idea began to unravel within a few years only.⁵⁴⁵ Between 1910 and 1920, pulp wood production rose from 1,085,628 to 2,161,797 cords. Exports of unprocessed pulp wood remained stable at 742,933 cords in 1910 and 827,982 cords in 1920. Sawn lumber production⁵⁴⁶ increased from 736,790,594 feet (board measure), to 1,391,603,879 feet, and the volume of square timber produced fell from 109,406 ft³ in 1910 to 7,533 ft³ in 1922, the last registered year for such production.⁵⁴⁷ During this time, the number of pulp and paper mills in operation in the province rose from 25 to 46, and the number of sawmills continued to oscillate between 1,500 and 2,000, as mills continually opened and closed along the receding edge of the forest line. Given that very little pulp wood (i.e., unprocessed timber) was exported from public lands to the United-States prior to the in-country manufacturing requirement of 1910, the growth of the pulp and paper sector had more to do with the availability of cheap supplies and abundant hydro-power than the purported effects of the 1910 legislation (prohibiting the export of raw timber) that changed next to nothing in terms of real exports (see Roby, 1976, ch. V; Vigod, 1986, p. 54).

⁵⁴³ *Ibid.*, pp. 72-73. Only once the system of fire protection was completed, would they "consider the advisability of planting along the river fronts,... but would leave to Nature the work of reforesting the interior."

⁵⁴⁴ By order-in-council (April 26, 1910), timber dues were nominally raised by a few cents; ground rents were raised from \$3.00 to \$5.00 per square miles; diameter restrictions on red and white pine were raised to 13 inches, restrictions on spruce, hemlock, cedar, maple, yellow birch and other woods were set at 12 inches, and balsam fir and black spruce could be legally cut at 8 inches – all measures taken two feet above ground; rates on timber dues and ground rents were to be maintained until 1920, however, ground rent could be increased if timber limits were not made productive, with the crown reserving the right to set the quantity of timber that had to be cut in order to constitute a rate of exploitation that was considered sufficient. See Appendix no. 27, in RMTF, 1910.

⁵⁴⁵ Howlett and Rayner (1995 and 2001) pointed to 1909 as the year that Quebec adopted its "conservation regime."

⁵⁴⁶ Given that sawmills were mostly small operations that depended almost entirely on wood from private sources, and therefore were not liable (theoretically) for the payment of crown dues, most of the sawn lumber production was not registered or tabulated, such that overall production must have been considerably higher.

⁵⁴⁷ Figures taken from the respective reports of the Minister of Lands and Forests for the years 1910, 1920 and 1922.

Moreover, evidence shows that land held under license continued to be handed over to settlers, in spite of the fact that the decision to open-up areas for colonization purposes was now a purely executive function, and thus could not be blamed on the misjudgement of land agents in the field.⁵⁴⁸ Evidence of the ongoing threat of speculation from individuals who acquired land under false pretences remained problematic in various regions of the province.⁵⁴⁹ Correspondence between leading industrialists (lumbermen and pulp and paper manufacturers) and succeeding ministers of Lands and Forests to solicit such favours as changes to land-use decisions, especially with regards to the rights of settlers, continued unabated.⁵⁵⁰ And whenever the government was accused of siding with lumbering interests, it invariably raised the false argument of the limit holder's "vested rights."⁵⁵¹ Yet, in spite of the competing interests of settlers and lumberers, it remained that natural resources were as central to the political economic imperatives of development as they were to settlement and efforts to bring an end to emigration. As Taschereau himself put it:

"We want to bring in new industries, and we are ready to do all that is possible in that direction... We invite foreign capital to join with us in developing our natural resources and creating industries here. Let the capital of England and of the United States come here as much as it wishes and multiply our industries, so that our people

⁵⁴⁸ See Act 9 Ed.VII, C. 24. This point was emphasized by Gouin himself: "*Des abus se glissèrent à la faveur de [la] loi de 1904. Nombre de personnes achetèrent des lots, non pour les mettre en culture, mais pour y couper le bois ou pour les revendre à des propriétaires de scieries. De plus, comme le ministre n'avait pas de contrôle sur les ventes, les lots se concédaient sans méthode, et, les colons, au lieu de se grouper, s'éparpillaient par la forêt. C'est pour remédier à ces abus que fut proposée et votée la loi de 1909... Aujourd'hui la vente ne doit se faire que dans les cantons désignés par le ministre des terres.*" See "*Le Gouvernement Gouin et son œuvre*," 1916, pp. 172-173. Available at [http://www.archive.org/details/legouvernementgo00qu]

⁵⁴⁹ For example, see Sessional Paper no. 26, 1912, Vol. 45, pt.4; See also introduction to section 4.

⁵⁵⁰ See Letter by John Gilmour to Jules Allard, dated December 7th, 1910, as well as numerous other examples of direct government interference to change land ordinances in favour of lumbering interests, in "Copies of all correspondence, circulars and other documents between the lands Department and any persons in connection with the minister's instructions to exchange, delay or put off the sale by land agents," in Sessional Paper No.33, 1912, Vol. 45, pt.4.

⁵⁵¹ In discussing the limited availability of land in older settlements, Gouin explained: "*dans la vieille partie de la province de Québec, nous avons à faire face à d'autres conditions. Presque toutes les terres actuellement accessibles à la colonisation sont sous licences de coupe de bois. C'est une situation dont le gouvernement Gouin est moins responsable que ses prédécesseurs. Les porteurs de licences ont des droits acquis, et pour les faire renoncer à ces droits, il faudrait les dédommager. Or, l'indemnité à payer serait énorme.*" See "*Le Gouvernement Gouin et son œuvre*," 1916, p. 178. The claim that governments could not alter the conditions handed to limit holders was used by nearly all succeeding administrations, even though the revocable nature of licensing rights was stipulated by law (e.g., see Article 1633 of Act 8 Ed. VII, c.7 and Act 9 Ed.VII, c. 24) and supported by judicial decisions from the Ontario Court of Appeal that were legally binding to Quebec (e.g., see *Smylie v. The Queen*, 27 A.R. (Ont.) 172 & *Muskoka Mill and Lumber Co. v. McDermott et al.*, 21 A.R. (Ont.) 129).

*will have work....[A]s I have said many times, I prefer importing American Dollars to exporting Canadian workmen."*⁵⁵²

Hence, regardless of the conservation rhetoric, the end purpose of forest resource use had little to do with achieving some semblance of sustainability. Industrial expansion was needed to stop the outward flow of French-Canadian migrants to New England mill-towns and well-timbered lots were needed to attract settlers in the rural districts of the province. Neither of these imperatives was consistent with the "conservation" idea of capturing the interests generated by moderate resource use, not the capital itself.

Although the right to sell-off concessionary rights to Québec's natural resources, and encourage the influx of foreign capital to develop the province's forests, mines and hydro-power was vested in the Lieutenant-Governor in council, and thus fell into the realm of political decision-making, the creation of a dedicated department under the care of a respected civil servant meant that decisions could now be framed in administrative terms, as opposed to political ones. In fact, the traditional statement of yearly activities, events and decisions by the Minister of Lands of Forests disappeared during the 1910s. While the reasons for this transition likely reside in the increasing responsibilities of public administrators (i.e., public servants), the change of reporting relationships ultimately helped to defend public choices by couching political decisions as the rational outcome of responsible public administrators.

At the onset of his 25-year tenure as Chief of the Forest Service, Gustave Piché obviously concurred with the principles of his executive orders, but his exasperation over the management of public affairs ultimately began to filter through his yearly reports. Over time, emphasis in the Department's year-end reviews steadily shifted from what the Forest Service did (although clearly enunciated in every report) to what it could do if the rules and decisions were changed in favour of more sustainable outcomes, or if the espoused virtues of responsible and long term resource use were actually applied. So when confronted with the

⁵⁵² Cited in Roby (1976, p. 169). Throughout his tenure as Minister of Lands and Forests, Honoré Mercier (fils) periodically produced promotional pamphlets detailing the natural resource wealth of the province and the stable conditions it offered to potential investors (resource supplies, trained workforce, and modest regulatory environment). For example, see Mercier, H., 1923. *Les forêts et les forces hydrauliques de la province de Québec*, Québec: Ministère des Terres et Forêts; and Mercier, H. and F.X., Lemieux, 1930. *Ressources Naturelles du Québec : Les forêts, l'industrie forestière, les ressources hydrauliques*, Québec: Ministère des Terres et Forêts.

incongruities of political imperatives, as when Piché explained in 1924 that forest reserves near factories were rapidly being depleted without the slightest regard to future needs, he seldom missed an opportunity to suggest a more preferable course of action: "*it seems to me that, by limiting the amount of cutting to the annual growth of the forest, that we would establish more stable exploitation.*"⁵⁵³ With his casual yet respectful tone, Piché consistently slipped personal remarks and anecdotal evidence, showing that things were not going as planned. Forests were not reproducing and growing as quickly as posited.⁵⁵⁴ Efficiency in the use of available resources remained wanting, both at the level of the individual unit – with only 35% of the available wood used per tree,⁵⁵⁵ and in terms of market opportunities or effort to diversify production to favour small industries and higher-end products (e.g., furniture, toys, cabinetry, flouring and textiles derived from wood cellulose).⁵⁵⁶ The maintenance of forest system productivity was continually threatened by abusive patterns of overexploitation on both public and private lands.⁵⁵⁷ And the continuous growth of the resource intensive pulp and paper sector could not be sustained by limiting the geographic scope of its expanding needs nor the size and quantity of timber appropriated from any given area.⁵⁵⁸

Fortunately, Québec had no shortage of wood beyond the boundaries of existing timber limits. Together with the shared belief that old-growth forests were necessarily decrepit or declining resource systems that needed to be removed in order to better regulate the reproductive potential of spruce timber, there was never any shortage of territory for extending operations. However, the problem with the liquidation theory of "over-mature"

⁵⁵³ See Appendix no. 9, RMLF 1923-24, pp.22-23

⁵⁵⁴ For example, see RCSF, 1919-20, p.33: "*Jusqu'ici le rendement de nos forêt n'a guère augmenté. Dans plusieurs cas, par suite de l'exploitation mal dirigée, de même que par suite des incendies, la composition de nos ténements forestiers a même subi une dégradation marquée. Il y a donc lieu de faire des réformes. Ces réformes s'imposent, et on doit les commencer immédiatement.*" In his report for 1916-17 (Appendix no. 13, p. 34), Piché writes: "*nous savons que, depuis une dizaine d'année, on s'occupe un peu partout de trouver des substituts à l'épinette et au sapin, pour les remplacer par d'autres essences, croissant plus rapidement, annuellement si possible.*"

⁵⁵⁵ See Appendix no. 13, RCSF, 1919-20, p. 31. Piché observes that on average, no more than 35% of wood available in any given piece of timber is used.

⁵⁵⁶ *Ibid.*, see pages 30 to 33: After explaining the lack of outlets for wood in Quebec, Piché adds, "*Je pourrais ainsi multiplier les citations et les exemples pour confirmer ce que j'avance au sujet de la grande nécessité de trouver des débouchés pour nos bois, de l'urgence de savoir employer judicieusement les bois indigènes.*"

⁵⁵⁷ For example, see RCSF, 1916-17, p. 38: "*il nous faut aviser, le plus tôt possible, à la restauration de la richesse forestière des ténements ruinés par le feu ou appauvris par une exploitation abusive.*" On private lands, Piché insisted that: "*it would be very desirable that we prevent abusive cutting which often happens thereon, in order to prevent properties and lots being deforested too often without much profit to their owner.*" In RCFS, 1922-23, p. 17.

⁵⁵⁸ For example, see RCSF, 1916-17, p. 33: "*Par suite de l'expansion considérable de nos usines à pulpe et à papier, il était devenu urgent pour ces sociétés d'augmenter leurs réserves de bois.*"

forests (i.e., "forêts surannées"), as Howe and others recognized (see section 7.2.2.3 above), was that removal of the over-mature layer did not stimulate the growth of only those seedlings that had economic value. In fact, not only did it accelerate the production of less desirable species, it tended to alter the system altogether by changing the composition of the dominant strata, thus diminishing the returns generated by mixed-temperate forests found along the main tributaries of the St. Lawrence watershed from the initial pine stock to spruce, then balsam fir and eventually the less desirable hardwoods (i.e., poplar, birch, and maple).

Regardless of the effects of selective high grading and the fact that the valuable spruce forest took much longer to grow than anyone cared to admit, the notion that virgin forests were declining or deteriorating resource systems provided a powerful justification for the continuous expansion of resource intensive industries. So instead of adjusting the productive output of pulp and paper manufacturers, and the number of sawmills to the actual reproductive capacity of the forest under concession, as A.T. Drummond, James Little, and Gustave Piché (among others) had suggested at various points in time, operators were not only allowed to expand and intensify their resource needs, they were in fact encouraged (and sometimes forced) to do so by the pro-development stance of the Gouin and Taschereau governments (Roby, 1976). The absence of any incentive to maintain the reproductive potential of forests held under short term licensing agreements only helped to aggravate the situation even further.⁵⁵⁹ Thus, the sale of timber limits could always be justified by the need to avoid the waste of over-matured forests, the commendable objective of stimulating the growth of new timber stocks,⁵⁶⁰ and the all-important tasks of promoting economic development and rural employment.⁵⁶¹ Moreover, forest held under license were believed to

⁵⁵⁹ The usual exceptions to this rule (i.e., the Laurentide Co., Riordon Paper Mills, Belgo-Canadian P&P Co.) had begun experimenting with reforestation methods during the early 1900s and were actively pursuing such strategies by 1916, but on private-held lands only (RCSF, 1916-17, p. 38). Piché called attention to the need to reforest lands held by municipalities, create "parks and urban forests," plant trees on the streets of towns and cities, and along the byways and roads in rural areas for all the benefits that trees provide in terms of diminishing heat island effects, dust, soil desiccation, etc. In short, Piché indicated, legislation was needed to give effect to such imperatives: "*Une législation s'impose à ce sujet, comme pour le reste des autres questions se rattachant au reboisement.*" See pages 37 to 40.

⁵⁶⁰ RCSF, 1921-22, p. 26: "[O]n sait que, dans les forêts vierges, parvenues à leur maturité, l'accroissement annuel est totalement annulé par les insectes et les champignons, sans compter les ravages du vent [et du feu] qui sont beaucoup plus importants qu'on le soupçonne; il est donc nécessaire de reviver la croissance, par une exploitation judicieuse et opportune." See also Appendix no.13, Report of the Minister, 1916-17, pp. 33-34.

⁵⁶¹ RCSF, 1917-18, p. 33: "*Notre province ne peut compter que sur cette industrie pour la mise en valeur d'une grande partie de son territoire, là où le sol y est incultivable et le climat rigoureux. Nous devons donc concentrer nos efforts pour y amener le plus tôt possible l'installation de ces usines, afin que voyions en même temps surgir de beaux villages...*" For a detailed treatise on the motives that supported Quebec's industrial development during the first three decades of the twentieth century, see Roby (1976).

be better protected from illegal appropriation and fire, and every concession brought with it considerable returns for the provincial economy. As Piché explained in 1917:

*"each new pulp or paper mill means a new town of three to five thousand inhabitants, which consequently means the expansion of the railroad system, and the development of a new section of the province."*⁵⁶²

With the expansion of the pulp and paper industry, the intensification of its resource needs, and the demand for new territories to serve the interests of settlers, the conservation principles of extended forest reserves, diameter size restrictions, and efficient resource use quietly withered away. But more importantly, the familiar struggle for resource rights between settlers and lumberers could once again be used to leverage exceptions in the application of rules. Each year, some 300 to 500 square miles of forest, productive of revenue to the Province, were detached from the so-called forest reserves⁵⁶³ and handed over to settlers.⁵⁶⁴ As a result, Piché explained, concession holders were forced to find the wood they needed further and further up-country, where *"the trees are not so big., not so high and not so productive of timber as in the sections handed to agriculture. Trees have to be cut [at] smaller diameter than elsewhere, which explains ...the numerous permits which the government has to grant each year to lumbermen to use the wood of these stands."*⁵⁶⁵ However, as detailed in the following section, the actual cause of the timber limit exhaustion and forced migration of lumbering further away from processing facilities – where the trees are not so big and the forests not so productive – had less to do with the demands of a few settlers than the significant overcapitalization spree that followed the First World War and which was pursued unrelentingly until the end of the 1920s.

⁵⁶² RCSF, 1916-17, Appendix no.13, p. 34: *"Chaque nouvelle usine à pulpe ou à papier veut dire une nouvelle petite ville de trois à cinq mille habitants; cela signifie par conséquent: agrandissement de notre système de voies ferrées, et développement de nouvelles sections du pays."* See also Report 1917-18, Appendix no. 12, p. 33.

⁵⁶³ Piché's use of the term "forest reserves" was figurative only, for the idea of Forest Reserves, as defined in Article 1628 of the Revised Statutes of 1909, was replaced in 1924 (Act 14 Geo. V, c.27, s.3) to mean only those permanent forest reserves that were constitutive of the parks and games reserves that included the Laurentide Park, Mont-Tremblant, and Gaspé for a total area of 7,288 square miles. Such areas could be logged, as per the existing auctioning process and could be clear cut in conformity with Article 1597a (1922, Act 12 Geo V, c. 36, s. 2).

⁵⁶⁴ See RCSF, 1923-24, p. 21.

⁵⁶⁵ *Ibid.*, p.22. Unfortunately, with the arrival of Taschereau, correspondances between Ministers and the forest industry ceased to be printed and thus made available for public scrutiny. Decisions were now made behind closed doors, making it more difficult to assess how and why institutional changes were adopted.

7.3.1 Finalizing the Transition to Forest Management

Between 1919 and 1928, Nelles (1974, p. 444) indicates that investments in pulp and paper manufacturing in Canada increased by 375% and output rose by 220%. In Québec, investments in processing technologies were motivated as elsewhere by US and British demand for newsprint, and especially the arrival of the American owned International Paper Company (1919-20). With its considerable resources and purchasing power, International Paper acquired rights to hydro-power facilities on the St. Maurice and Gatineau Rivers, and developed state of the art processing facilities for newsprint production, capable of producing pulp and newsprint at prices that undercut competition by a wide margin. To remain competitive, less efficient operators had little choice but to invest and modernize their own facilities.⁵⁶⁶ The scenario was nearly identical in Ontario, and together, the major pulp and paper manufacturers engaged in an ongoing process of overcapitalization, overproduction and under-pricing that drove the market value of newsprint from \$137 per ton in 1921 to only \$57 in 1931 (Nelles, 1974, p. 444). The price of newsprint fell below the cost of production to \$40 per ton in 1932, causing the collapse of the overall pulp and paper trade, and the bankruptcy of several large firms (including Abitibi and Price Brothers). Attempts to bring order to the situation by forging an alliance between Canadian and British owned firms against the price-fixing practices of International Paper invariably faltered as each player, believing that others would renege on their promises, defected from whatever pricing agreement was reached. The spiralling effect of the high stakes dilemma was eventually resolved in 1935 when new legislative enactments made it possible for government to retaliate against any firm that did not respect its commitment to other operators (see discussion below).⁵⁶⁷

Unfortunately for those who had contracted heavy debts in the initial race to increase production capacity in 1920, the rising U.S. demand for newsprint took a turn for the worse in 1921-22 as the American economy entered into a deep, though short-lived, recession. The effects of the economic downturn were felt immediately in Québec and operators wasted no time in demanding more accommodating conditions from the Lands and Forest Department.

⁵⁶⁶ See *Agriculture and Industrial Progress in Canada*, Vol. 3, No. 5, May, 1921, p.93

⁵⁶⁷ For more detailed analyses of the struggle for dominance in the newsprint sector, see Nelles (1974, pp. 443-461), Fell (1934), and Guthrie (1941).

The government responded by suspending an increase in dues and ground rent⁵⁶⁸ that was scheduled to take place in 1920-21, if operators agreed to harvest at least 25% of their previous annual cut, even temporarily suspending such dues if companies agreed to harvest burnt or damaged timber.⁵⁶⁹ However, industry demands extended far beyond the issue of timber dues and rents. To remain competitive, and increase their production capacity, pulp and paper manufacturers could no longer rely on that portion of their timber stock that met or surpassed allowable diameter restrictions. More fundamental changes were needed in the existing regulatory framework because, it was argued, operators were continuously being forced onto marginal and less productive areas due to the incessant demands of settlers. Consequently, limit holders needed to solicit larger areas and exceptions to harvesting rules in order to sustain their activities.⁵⁷⁰

The question was how to introduce such amendments without appearing to endanger the long-term viability of public forests or risk attracting the ire of opposition and critics. The solution lay in widening the set of allowable actions that limit holders could pursue (in contradiction to applicable Crown timber regulations) if such actions could be justified on the basis of a timber management plan. Revisions to the Lands and Forest Act were thus introduced in March 1922 to offer such flexibility. Through Article 1597a (1922, Act 12 Geo. V, c. 36, s. 2), the government prohibited "clean cutting" (i.e., clear-cutting) on forests belonging to the Crown, *unless* a licentiate obtained a "special authorization" from the "Executive Council." Operators could no longer request "special permits" that contravened regulations by appealing to the Minister directly, as practiced before 1922.⁵⁷¹ Instead, license-holders who wished to obtain the right to carry out "extraordinary cutting" now had two options: 1) either they produced a workplan "based on a proper inventory" of their limits that could demonstrate anticipated growth gains over time or, 2) in the case of timber damaged by

⁵⁶⁸ Since 1910, Timber dues and ground rents were increased twice by order-in-council no. 765 on June 13th, 1918 and again by order no. 1956 on October 6th, 1920.

⁵⁶⁹ RCSF, 1920-21, pp. 23-24.

⁵⁷⁰ RCSF, 1921-22, p. 18.: "*les concessionnaires forestiers doivent aujourd'hui solliciter, pour de très grandes étendues, la permission de couper par exception aux règlements, afin de pouvoir exploiter une quantité de matériel ligneux suffisante pour alimenter leurs usines.*"

⁵⁷¹ Since the government no longer published relevant correspondence in the Sessional Papers, as practiced up until the First World War, it is difficult to tell how old and how widespread was the practice of requesting special permits to cut below regulated diameter restrictions prior to 1922. But in his report for the year 1922-23, Piché indicated that 42 special permits were handed by the government during the cutting season for 1920-21 (see p. 20). Experimentation with clear-cuts were initiated by Ellwood Wilson of the Laurentide Company on privately-held land between 1916-1917. See RCSF 1916-17, p. 47.

“windfall, fire, epidemics of insects or *cryptogamic* diseases,” they could produce a plan showing the extent of the damage and the volume of timber that would thus need to be salvaged.⁵⁷² Such management plans had to present a table, backed by studies, showing the annual rate of growth on limits held under license. Such growth estimates, Piché explained, would be recognized as the “*possibility*” of a forest, or “*that which we can allow being cut each year without decreasing the volume of the forest – reducing...overall estimates to take into consideration loses from natural causes (fire, insect, wind)*.”⁵⁷³ Therewith was born the concept of “*la possibilité forestière*,” which would come to guide all forestry operations in the province to this very day. Ultimately, Piché hoped, the legislative change of 1922 would place the forest industry on a more sustainable path, by progressively instituting a sustained yield approach that would help regularize the regeneration of timber stands and harvesting operations, increase system productivity, and force concessionary holders to cut only that which the forest could produce, not what their facilities could process:

*“De cette façon, nous nous acheminons d’une part vers une coupe soutenue et régulière et d’autre part, vers un enrichissement progressif de nos ressources forestières. Ceci ne constitue qu’un premier pas dans la bonne direction” qui “aura...pour effet de régulariser la marche des coupes, et de forcer les concessionnaires à limiter le chiffre de leurs exploitations non plus aux besoins de leurs usines, mais de la capacité productrice des forêts qu’ils détiennent.”*⁵⁷⁴

However, the idea that forest management plans, as practiced at the time, would help create a better fit between the demand for forest resources and the reproductive capacity of forest resource systems was fraught with challenges. For even if the stated objective of the new management paradigm was to improve such a fit, the unwritten purpose of the revised forest institutions was clearly focused on deregulating public forest resource use for the benefit of the industry. In other words, Article 1597a gave limit holders the freedom to justify, with more or less credibility, their ability to withdraw increasing volumes of wood on the basis of anticipated hypothetical gains, which no one at the time could reasonably or reliably predict. There is no clearer proof of this assertion than the continuous northward

⁵⁷² Article 1597a, Act 12 Geo. V, c. 36, s. 2 (March 21, 1922).

⁵⁷³ RCSF, 1921-22, p.19: “*Cette quantité que nous désignons sous le nom de “possibilité” est par conséquent, celle que l’on pourrait permettre de couper chaque année sans diminuer le volume de la forêt.*” Timber damaged by wind, fire or insect was not subject to the “possibility” clause and could thus be entirely removed without hindering future cutting operations.

⁵⁷⁴ Ibid.

migration of the forest sector, as reserves, limits or concessions were repeatedly and continuously depleted of their valuable time (see discussion below and in Chapter VIII).⁵⁷⁵

The need to undertake forest inventories was advocated by the progressive branch of the pulp and paper manufacturers as early as 1906 (see above), reiterated time and time again by Piché, and consistently demanded by members of the Opposition.⁵⁷⁶ The origins of the 1922 regulatory amendment therefore, cannot be attributed to Premier Taschereau and his Minister of Lands and Forests, Honoré Mercier (son of the late Premier). Gustave Piché, who had long sought to place forest resource management in Québec on a more reliable, rational, and “scientific” footing, certainly played a key role in defining the inventory concept and the more important principle of the forest’s potential yield (i.e., “la possibilité forestière”). However, by handing over of the final decision on whether to approve clear cutting to the Lieutenant-Governor in council, not only did the new law protect the residual prerogative of the Crown – vested as always in the executive, but it also helped to ensure that government would retain control over the course of political-economic affairs in the province and thus continue its policy of unhindered free-market enterprise and resource-based industrial development (Roby, 1976).

The recognition that government had no intention of limiting the growth of the forest sector, either in terms of the annual volume of wood appropriated from public and private sources, or the number of sawmills and pulp and paper manufacturing facilities that were being built each year, did not deter Piché from advocating the need for greater control. “*There can be no question*” he wrote in his Report for 1923-24, that Québec cannot limit the production of its mills without “*the same policy being followed in...other Provinces.*” But, he insisted, “*we can and ought to limit the cutting of timber on Crown lands within what is possible...The legal means at our disposal is the inventory and we should use it judiciously and without weakness.*” In 1920, the president of the Laurentide Co., Piché reminds his

⁵⁷⁵ As thoroughly examined in the 2004 Report of the Commission for the study of public forests (see Chapters 5 and 6), the failure of the government to develop reliable estimates of the reproductive potential of public forests (i.e., “*le calcul de possibilité forestière*”) was one of the leading causes of overexploitation and deficient forest resource management at the turn of the 21st century. The reliability of early forest estimates was by no means any better. See Ls.Z. Rousseau, 1937. *Les bases scientifiques de notre économie forestière*. Contribution no. 16, Publication de sylviculture de Québec : Québec; RCSF, 1940, pp. 44-45, 87-88; P.E Lachance, 1949, Sustained Yield Management in Quebec, *The Forestry Chronicle*; Lussier (1953: 172-173)

⁵⁷⁶ On the demands of the legislative opposition, see *Débats de l'Assemblée législative*, 20 janvier 1927, p. 776.

readers, urged the need *"to reduce the cutting on timber limits so as avoid a dearth of wood."* But *"since then, new [pulp and paper] mills have been built, [and] others have doubled and tripled their output... We cannot go on this way for there is imminent danger that we shall be short of wood in certain places."*⁵⁷⁷ Sawmills were continuously being erected with little regards to actual conditions, such that before long, Piché worried, all *"the serviceable wood"* would be cut, leading to an even more *"rapid exhaustion of our forest resources."*⁵⁷⁸

Piché was not the only one to be alarmed by the pace of overexploitation. The near exhaustion of existing timber limits was denounced by the most respected foresters and industrialists of the day, including C.D. Howe, Ellwood Wilson, William Price, Hubert Biermans (President of the Belgo-Canadian Pulp), and F. J. Campbell (President of the Canadian Pulp & Paper Association).⁵⁷⁹ The endless march of forest operations and the limitless needs of industry brought about the progressive depletion of valued timber stocks in and around established processing facilities, *"to the point where"* some of the largest limit holders in Canada, such as the Price Brothers, could *"see the end of the forest resources."* As William Price underscored during the Second British Empire Forestry Conference in 1923:

*"I remember the day when we would cut nothing but the biggest spruce logs,... but gradually we began to cut the smaller sizes...When I got into the business no one would make a log out of balsam; it was regarded as a weed...but balsam today is almost as highly regarded as spruce. Then the paper business came in, and now we cut our logs down to three inches. Not only are we doing that, but we are cutting...anything we can get to make paper."*⁵⁸⁰

For Clifton D. Howe, of the University of Toronto, the situation was critical not only in Québec, but across Eastern Canada as a whole. The utter absence of any effort to achieve what would today be referred to as sustainable outcomes could only be explained by the comparable absence of any effort by the State to maintain the ambitions of industry within bounds and further ensure the productive capacity of the forests themselves:

⁵⁷⁷ RCSF, 1923-24, pp. 36-37.

⁵⁷⁸ *Ibid.*, pp. 37-38. With Article 1610a of Act 12 Geo. V, c.36, s.5 (1922), sawmills on Crown Lands could only be established with the consent of the Department of Lands and Forests, which, according to Piché, was relatively easy to obtain.

⁵⁷⁹ See *Débats de l'Assemblée législative*, Cahier n°46, 17 mars 1926, pp. 608-621.

⁵⁸⁰ See Second British Empire Forestry Conference, 1923. *Proceedings and Resolutions*. Ottawa: F.A. Acland, p. 44.

*"As you know, industrial development on this continent is based upon the reckless exploitation, not upon the intelligent conservation, of the natural resources. We are rich because Nature's gifts are rich...In a land of plenty we have helped ourselves with marvelous prodigality; we have not only wasted materials but we have dissipated Nature's productive capacity in field and in forest. Notwithstanding this, the appeal is still emphatic for more reapers and more paper-machines, whereas the plea for an intelligent basis for future production upon which alone prosperity can be maintained is scarcely heard above the roar of machinery. The object of all industrial effort seems to be mass production. He is successful who can produce the greatest quantity of things in the shortest time – and sell them. We have indeed made a fetish of speed and riches."*⁵⁸¹

7.3.2 Consequences of Concentrated Authority

As explained elsewhere in this chapter, no one at the time was actually worried that Québec was going to run out of wood in any predictable future, for the province still had several hundred thousand square kilometres of untapped supplies in the boreal north. What concerned lumbermen, foresters, and leading industrialists was the speed with which allocated resource supplies were being depleted, and the consequences that might be expected to follow from the exhaustion of nearby stocks. For instance, it was reported that in some cases, wood had to be ferried 500 miles by railway car or down winding rivers, and it could take up to two years for wood to travel from a cut block to its final destiny.⁵⁸² Mill owners were understandably anxious about the future and how they might secure affordable supplies over the long term. While abundance and relatively cheap timber dues had previously conspired against the foreseeable gains of forest maintenance activities, the diminishing stock of nearby supplies and the rising costs of appropriating timber further and further away from processing facilities made the idea of investing in local resource supplies a worthwhile proposition at the onset of the 1920s.⁵⁸³ Reforestation experiments were conducted by a few pulp and paper manufacturers (e.g., Laurentide, Riordon, Belgo-Canadian, and Abitibi) but the overall effort was simply too modest to even be considered a viable alternative to the use of natural forests.⁵⁸⁴ On its end, government invested considerable sums of money in its initial Berthierville nursery,⁵⁸⁵ but most of its production was destined for use on private

⁵⁸¹ *Ibid.*, p.143

⁵⁸² *Ibid.*, p. 146.

⁵⁸³ *Ibid.*

⁵⁸⁴ *Ibid.*, p. 145.

⁵⁸⁵ The number of government sponsored nurseries was increased to eight in 1935.

lands and the estimated 3,000,000 acres of wastelands created by past efforts to convert uncultivable areas into farmland. Moreover, given the fact that forest appropriation activities essentially covered tens of thousands of square kilometres, the very notion that such a vast expanse of territory could ever be replanted was regarded as being both impracticable and wasteful of scarce resources. The solution, which Fernow and Piché defended in the early 1900s and Howe and others later corroborated in the 1920s, was to foster the natural regenerative capacity of forests themselves.⁵⁸⁶ Intense silvicultural techniques involving artificial propagation may be warranted near existing processing facilities, where returns on investments could be maximized, but given the extensive nature of forest operations in Québec and the fact that operators more or less lacked any "*continuity of outlook [or] purpose*"⁵⁸⁷ relative to payoffs that may take 30 or 50 years to mature on land that did not belong to them, operators were understandably reluctant to invest anything more than what they expected to recoup.

However, the more fundamental provisioning problem that Québec had to confront, according to Piché and Howe was not the regeneration of forests per se, but the management of regenerating systems. As Fernow put it, "*forestry is not tree-planting, but begins best when the first tree is cut.*"⁵⁸⁸ What the province needed to encourage more than anything else was the use of thinning and improvement cuttings, so as to favour the regeneration of economically valued timber, and prevent the transition of cutover areas to either pure stands of balsam fir or hardwood dominated ecosystems.⁵⁸⁹ Again however, such practical measures had little purchase in a system dominated by short-term interests. In the absence of any constraints, obligations, or incentives that might have compelled users to act differently, the ultimate objective of most concession holders inevitably centred on maximizing returns as quickly as they could, which in turn meant investing as little as possible in maintaining resource systems that did not belong to them.⁵⁹⁰ While some argued that tenure insecurity was the fundamental reason for the reluctance of concessionary holders to maintain the

⁵⁸⁶ See Proceedings of the Second British Empire Forestry Conference, 1923, pp. 144-145, 151.

⁵⁸⁷ *Ibid.*, p. 150.

⁵⁸⁸ Fernow, B. 1909. "What We Want", in *Report of the Tenth Annual Meeting of the CFA*, p. 77.

⁵⁸⁹ Proceedings of the Second British Empire Forestry Conference, 1923, pp. 146 and 151. See also RCFS, Appendix no. 9, 1923-24, pp. 36-37.

⁵⁹⁰ The absence of any obligation on the part of concession holders to invest in the maintenance of forest resource systems was again underscored during the Bélanger Commission (1965, p. 204).

productivity of public forests (e.g., Lussier, 1953, p. 171), it is interesting to note that such insecurity, if it indeed ever existed, never prevented anyone from building costly manufacturing facilities or investing further resources to improve the efficiency of processing technologies – a point that is further enforced by the fact that the liability for miscalculated investments largely rested with the public (see Section 7.2 above).

As Henri Joly, Benjamin Hough and Bernard Fernow had long ago recognized, sustainable forestry necessarily implies “*financially foregoing present revenue[s] or making present expenditure[s] or investments for the sake of future revenues.*” For “*only in the long run,*” Fernow insisted, can “*forestry...be made profitable.*”⁵⁹¹ However, the calculus of self-interest in large industrial investments tends towards even larger financial returns and few were willing to compromise the immediacy of short-term payoffs for the sake of an uncertain future return. While the cost-sharing system of fire surveillance was a broadly accepted expenditure, forest restoration was not. So when the Ministry of Lands and Forests widened its reforestation efforts during the 1920s and 30s, costs were borne by the public and the practice remained unchanged thereafter (see further discussion below). Recurrent references to government operated tree nurseries in public debates certainly suggests that such measures provided a politically convenient response to those who accused the government of complacency in the overexploitation of public forests, but the effectiveness of such restoration work was never actually evaluated and the need to engage in sustained maintenance activities such as pre-commercial clearing, thinning or release cutting was conveniently neglected by private operators and public managers alike.⁵⁹²

In the run-up to the stock market crash of 1929, the several firms that did engage in forest maintenance activities invariably abandoned such ideals, as competition between pulp and paper manufacturers grew and the market value of their products began to fall back. To sustain the pace of growth, government intervened by reducing stumpage dues and ground rents whenever market conditions rendered operations less profitable (e.g., between 1921-24 and 1930-36). As large-diameter supplies neared exhaustion, the rules governing withdrawal

⁵⁹¹ Fernow, B. 1908. “The Forest Necessities Of Canada”, in *Report of the Ninth Annual Meeting of the CFA*, p. 103.

⁵⁹² Deforestation was the subject of ongoing discussion in the Debates of the Legislative Assembly as well as in the press. The limits of reforestation efforts are discussed in Howe (1923) *Proceedings of the Second British Empire Forestry Conference*, pp. 144-145; and Reports from the Chief of Forest Service, 1910 to 1930.

rights were continuously amended to legalize cutting below previous restrictions, thus increasing the volume of wood that could be withdrawn in any given area of forest. Additional cost-savings measures were provided in the form of reduced stumpage on wood damaged by fire, insects or wind,⁵⁹³ even though such damage made little difference for pulp and paper manufacturers. And for those that had already exhausted their limits – especially in the St. Maurice valley – the concept of “domanial forests” was introduced in 1924 (i.e., forêts domaniales – 14 Geo. V, c.27) to support the ongoing resource needs of industry in heavily logged areas. Specifically created to serve industrial purposes, domanial forests were essentially crown-owned timber limits that could be used by mill owners to supplement their operations by purchasing specific quantities of wood, but with the added benefit of being free from any additional charges, such as ground rents, bonuses on the purchase price, or the need to develop management plans. Over time, the principle motive for domanial reserves shifted towards the need to support small industries, but even then, most operators tended to send their wood to pulp mills, instead of favouring alternative uses.⁵⁹⁴ During the 1960s and 70s, the concept of domanial reserves was expanded to become the principle mechanism for allocating resource rights (see Chapter VIII).

While a more appropriate response to overcapitalization and the increasing resource needs of pulp and paper manufacturers would have been to proportionally increase crown dues to restrain the intemperate actions of concession holders, the fact is that most operators had become simply too big and too important to fail. Moreover, the overzealous behaviour of operators was in large part attributable to succeeding governments. Since 1873, the sale of forest resource rights had to proceed through an auctioning process but in truth, such competition – especially with regards to the pulp and paper industry – never really existed. Thanks to the executive’s exclusive rights over Crown resources, the sale or leasing of such assets could be negotiated behind closed doors, thus limiting third party interference and the uncertainty of an auctioning process. In turn, the Minister of Lands and Forests could easily reciprocate private advances by manipulating the terms and conditions of advertised auctions

⁵⁹³ Rates on saw logs (per 1000 feet board measure) were set at \$5.00 for white pine, oak, hickory and walnut; \$3.50 for Red pine, elm, ash, birch, maple, etc.; and \$2.70 for Spruce, balsam, cedar, and gray pine. To promote salvage cutting, these rates were reduced to \$2.00 ; \$1.75 ; and \$1.50 respectively. Between 1919-24, ground rent was maintained at \$6.50, raised to \$8.00 for 1925-30, and lowered to \$3.00 in 1930.

⁵⁹⁴ See Report of the Chief of Forest Service for 1939-40, p. 38.

with such specificities and requirements that only those firms that held prior knowledge could bid on a proposed sale. Overtime, such proximity inevitably rendered government even more susceptible to the rent seeking efforts of private operators. Interesting cases that generated lengthy debates in the Legislature include the sale of 2,500 square miles of forest on the Manicouagan River⁵⁹⁵ in November 1923, and the advertised sale of various blocs⁵⁹⁶ of forests totalling 4,200 square miles between February and March 1926. In both instances, purchasers were obligated to build manufacturing plants capable of producing over 200 tons of pulp and 100 tons of paper per day in the case of the Manicouagan sale; 450 tons of newsprint per day for an 1800 square mile acquisition on the Gatineau River; and 200 tons of pulp a day along with a power generating facility on a 1000 square mile concession on the Mistassini River.⁵⁹⁷ To place a successful bid, tenders had less than a month to draw-up a plan for the construction of the proposed pulp and paper mill and/or power generating facility (given the delay between the relevant order-in-council and the publication of the call for proposals). They were required to deposit a security of \$200,000 to \$500,000 days prior to the scheduled sale. They had to inventory conceded limits before a single tree was cut; and pay a ground rent bonus of \$400 to \$600 per square mile. The sales were adjudged to the firms that bid the highest surplus, over and above the normal timber dues (per cord or 1000 feet board measure), which was seldom more than five or ten cents above the base price since no more than two bidders ever submitted a proposal.⁵⁹⁸ While such prices might appear reasonably high, compared to the average bonus on a timber limit in 1903 (i.e., \$111.60),⁵⁹⁹ it was nothing compared to the actual market value of a well-stocked berth, which William Price estimated to be worth between \$5,000 and \$10,000 per square mile in 1923.⁶⁰⁰ However, no matter how significant or credible the evidence of corruption and mismanagement or how prejudicial to the public's interests such sales may have been, the ruling Liberal party only had to use its majority to defeat any motion, amendment or proposition that members of the Opposition dared to bring forth in the Assembly. In truth, the

⁵⁹⁵ DAL, Cahier n°54, 14 mars 1924, pp. 842-850

⁵⁹⁶ DAL, Cahier n°23, 11 février 1926, pp. 328-333; Cahier n°24, 12 février 1926, pp. 335-341; Cahier n°46, 17 mars 1926, pp. 608-621.

⁵⁹⁷ DAL, Cahier n°46, 17 mars 1926, pp. 608-621.

⁵⁹⁸ Based on the evidence brought before the Legislative Assembly, it appears as though second bidders were used to give the appearance of a competition between at least two contenders, only one of which was clearly credible. See the debate over the sale of the Manicouagan concession in DAL, Cahier n°54, 14 mars 1924, pp. 842-850.

⁵⁹⁹ See Report of the Minister of Lands, Mines and Fisheries, 1901-02, p. xv.

⁶⁰⁰ See Proceedings of the Second Empire Forestry Conference, 1923, p. 44.

government's only real worry was to fend off attacks by the Conservative opposition, which Honoré Mercier did with the all art and cunning of a well-seasoned politician. As for the likelihood of unfavourable statements in the press, the leading papers of the day were so evenly divided along clear partisanship lines (Roby, 1976) that any negative media report could easily be refuted as just another lie or fabrication in favour of the opposition.

Between 1920 and 1926, some 10,528 square miles of forestland – an area equal to five times the size of Prince-Edward-Island – were thus “auctioned” off to a handful of industrialists. For those who were most intimately acquainted with the consequences of over-entry on Québec's forest resource systems, the situation had become untenable and a moratorium had to be placed on the construction of new mills or the propensity of existing establishment to continuously increase their production capacity. Ellwood Wilson, for instance, argued that there were indeed limits to growth and that, out of common interest, firms had a duty to adjust their manufacturing requirements to the actual reproductive capacity or sustainable yield of the forest upon which they depended:

*"Il semble que le temps est venu de crier halte dans la construction de moulins à papier ou dans l'érection de nouvelles machines à papier dans les usines existantes. Peut-être que tout cela crée la prospérité présente, bien que j'en doute, car le temps viendra vite où les fabricants se prendront à la gorge pour s'emparer du marché, et ce serait faire preuve de sens commun de ne construire des moulins que selon la possibilité de production forestière."*⁶⁰¹

In considering the potential effects of the situation, Taschereau appeared to recognize the need to conserve forest resources and place some limits on the establishment of new mills, as discussed in his 1927 Speech from the Throne:

"[Il est] temps de se demander si cette expansion extraordinaire ne doit pas avoir ses limites et si, dans l'intérêt de la forêt et de sa conservation, et pour assurer la prospérité des industries établies, il n'est pas mieux de ralentir quelque peu et de ne pas encourager trop d'usines nouvelles?"

Although Taschereau was not above the idea of expanding industry further still, especially on rivers that could be harnessed for their energy, or where communities might

⁶⁰¹ Cited in Débats de l'Assemblée législative (DAL), Cahier n°7, 20 janvier 1927, pp. 76-77

foreseeably profit from such developments, the primary task of his government was to ensure that existing operators would find the long-term supplies they needed to maintain their operations:

*"Il est vrai que, dans certains endroits de la province, là où il y a des pouvoirs d'eau inexploités et qui ne peuvent l'être que comme accessoires de la forêt, là encore où une population peut en bénéficier largement, la restriction n'a peut-être pas encore sa raison d'être...[Mais] il est également de notre devoir d'assurer aux grandes compagnies actuelles des ressources forestières pour leur permettre de vivre et des réserves qui enlèveront aux compagnies propriétaires de ces usines toute inquiétude."*⁶⁰²

In the last half of the 1920s, competition between pulp and paper manufacturers had become so fierce that when the speculative bubble finally burst in 1929, the industry was mired in debt generated by overcapitalization and a sub-optimal pricing structure that was barely sufficient to cover operating costs. Caught in a complex web of funding schemes supported by financial institutions and insurance brokers who were themselves organized in trust-like structures, most operators had no cash reserves on hand to absorb losses, many went under, production came to a near standstill, and thousands of labourers were put out of work throughout the province. Although the forest sector represented less than 10% of the province's total revenues by 1929 (compared with 32% of revenues in 1901),⁶⁰³ the economic wellbeing of the province remained inextricably tied to its forest wealth and a slowdown in the productivity of the forest sector meant economic hardship across the province. As the full effects of the economic crisis began to take their toll, no sector of the provincial economy preoccupied Taschereau more than the pulp and paper industry (Vigod, 1986, pp. 180-187). For in contrast to most other sectors of the provincial economy, the pulp and paper industry was not so much a victim of ongoing circumstances but a net contributor to the speculative bubble that led to the collapse of North American markets in 1929. In short, the demise of the pulp and paper sector was largely self-inflicted. In trying to come to grips with the relentless efforts of manufacturers to undercut their competitors, Taschereau believed that:

"there [was] only one answer [to the general failure of the forest sector], and that [was]...the promoters' passion to "get."...Future profits have been capitalized, and

⁶⁰² See Débats de l'Assemblée législative. Cahier n°3, 13 janvier 1927, pages 20-32.

⁶⁰³ See Débats de l'Assemblée législative. Cahier n°12, 29 janvier 1929, pages 186-214.

the overcapitalization converted ... to the benefit of the enterprising promoters [i.e., financiers], and as a result, this basic industry [was] hopelessly overloaded to the crack of doom."⁶⁰⁴

However, the situation was more complex and indeed far more personal than what Taschereau willingly admitted. Essentially, the problems of over-entry, overcapitalization, and cutthroat competition were not the fruit of unfettered capitalism and self-interested behaviour alone. In effect, such risk-taking behaviours were largely created or stimulated by the government's pro-development policies, including: 1) the maintenance of low prices for resources and energy in the midst of rising demand; 2) contractual obligations to build and maintain resource intensive pulp and paper processing facilities, along with minimum daily production quotas; and 3) the constant manipulation of rules to support the growing resource needs of an unsustainable industry. Further, from the mid 1920s onwards, Taschereau also sat on the board of many of the major financial institutions that underwrote the expansion of the pulp and paper industry and hydroelectric sector. As a prominent member of the Barclay's Bank, the Royal Trust Company, North American Life, the Sun Life Insurance Company, the Title Guarantee and Trust Corporation, the Royal Liverpool Insurance group, and the Canadian Investment Funds, which he joined in 1932 (see Vigod, 1986, p. 191), Taschereau not only determined the course of public and economic affairs in the province, he also stood to benefit directly from such decisions and/or assist others in doing so. As one contemporary observer noted, it was possible to "*transact business with the Québec government as quickly as you can with any private company*" (*Ibid.*, p. 192).

Whether Taschereau felt personally responsible for the demise of the pulp and paper industry is unclear, but from 1930 to 1935, most of his attention was focused on trying to get the leading manufacturers to stop their suicidal price wars and adopt minimum pricing agreements that would provide more stable conditions for investors and resource-dependent communities alike. Confronted with the impossibility of getting pulp and paper manufacturers to voluntarily agree to a common pricing structure and bring an end to the cut-throat tactics of the American-owned International Paper, Taschereau passed legislation designed to *ensure the protection of forest resources in the province* (1935 Act 25-26 Geo. V,

⁶⁰⁴ Financial Post, 23 April, 1930, cited in Vigod (1986, p. 181).

c. 22), which threatened to substantially increase crown dues for any license holder that did not follow the pricing directives set by Ontario and Québec, maintain pre-set production targets and pay workers a minimum wage. While successful in mediating a “gentlemen’s agreement” in early 1936 that essentially avoided the use of authorized sanctions,⁶⁰⁵ Taschereau’s government had become so deeply enmeshed in what Black (1977, p. 153) neatly described as “*bribery, embezzlement, nepotism, [and] extortion*” that its future was essentially over. As revealed in the more credible portions of the inquiry carried out by Maurice Duplessis through the Public Accounts Committee (1936-39),⁶⁰⁶ the stench of corruption was rampant throughout the Taschereau government, both at the level of Cabinet (though no one was ever formerly charged) and within the various public departments (see Gow, 1986, pp. 155-159). After nearly four decades of one party rule, the government had lost all trace of public accountability; the misappropriation of public funds had become rampant; and patronage, cronyism or nepotism became accepted norms for allocating public contracts, purchasing supplies or hiring staff. As evidence of questionable decisions and duplicitous behaviour began to filter through the press, along with the unrelenting criticism of prominent former Liberals such as Paul Gouin (son of the late premier), the odds of ever regaining control over the situation were set against Taschereau, forcing him to resign from office on June 11th, 1936.

7.3.3 Crisis and Experimentation

As is often the case, crises can generate new ideas but they can also serve as an excuse to relax institutional safeguards in order to stimulate private investments and renewed economic activity. Between 1930 and 1936, the government began to experiment with variable leasing agreements (lasting anywhere from six months to twenty years, and one to fifty square miles in size) that were awarded to local manufacturers and sawmill owners (with reduced ground rent obligations from \$8.00 to \$3.00 per square miles) to stimulate employment. To support the needs of factories that had depleted their reserves, rules were amended in 1931 to allow the Ministry of Lands and Forests to issue “*special permits*” to operators to cut up to 150,000 cubic feet (per year) of timber from vacant lands in exchange

⁶⁰⁵ See Rapport du Chef du Service Forestier, 1938-39, p. 34-36

⁶⁰⁶ Enquête du Comité des comptes publics. (Procès-verbal) Québec, dactylographié, 8 vol. Maurice Duplessis took advantage of his position as the head of the Committee to push his own agenda (see Gow, 1986, pp. 155-156).

for a slightly hire stumpage (to compensate the fact that permit holders did not have to pay bonus fees, ground rents, culling fees, or fire protection fees)⁶⁰⁷ – a practice that was initiated under Taschereau but pursued unremittingly thereafter. In 1932-33, 10 permits were issued; 58 were handed out in 1935-36, and 177 in 1941-42, after the law was changed (i.e., 1941)⁶⁰⁸ to allow permit holders to take up to 300,000 cubic feet of timber to support the milling needs of factories that were of “*economic necessity*” to the region where they were located (see Boutin, 1944, p. 130). And to support growing household needs, the system of township reserves (i.e., “*reserve cantonales*”) was increased from 1,070 square miles in 1931 to 1,455 square miles in 1936 (and eventually raised to 2,142 square miles in 1941), and free permits for firewood and other necessities were handed out until the end of the 1930s.

In terms of developing more efficient patterns of forest resource use, one of the most interesting initiatives to have been created during this period was the Forest Products Commission of 1931 (Act 21 Geo. V., c. 33). As often considered in the annual reports of the chief of the forest service, Québec’s forest sector had become overly dependent on the pulp and paper industry in the first decades of the 20th century. And as C.D. Howe and G. Piché underscored in their various writings, the absence of a diversified industry affected not only the economic resilience of the overall forest sector (i.e., mono-industrial complex with no alternative outlets to face fluctuating market conditions), it also limited the possibility of establishing more sustainable pathways. In effect, the extensive development of the pulp and paper sector created strong incentives to overharvest some trees (e.g., spruce and fir) to the detriment of others (e.g., shade tolerant and intolerant hardwoods), thus creating an imbalance in the natural regenerative capacity of accessible mixed and boreal forest systems, which in turn allowed faster growing poplar, birch, and maple to overcome the slower growing evergreens.

The Forest Products Commission was created at the insistence of the timber trade and sawn lumber industry, and sought to understand how Québec’s forests were being used, and identify unexplored niches or outlets that would be productive of wages and labour (e.g., tools, toys, furniture, cabinetry, construction, veneers, interior finishing, flooring, mouldings,

⁶⁰⁷ RCSF, 1930-31, p. 28; See also Act 21 Geo V., c.34 authorizing the Minister of Lands and Forests to issue, without public auction and without previous notice, special permits to cut up to 150,000 cubic feet on vacant lands.

⁶⁰⁸ 5 Geo. VI, c.25, s. 2, art. 17a.

and other special applications such as synthetic silks). The logic pursued by the Commission was straightforward. Not only would the pursuit of value-added production maximise efficiency gains by supporting a more complete use of available resources, it would also help manage forests better by balancing demands across the range of available supplies (instead of only spruce, pine, and fir). Until its dissolution in 1936,⁶⁰⁹ the Commission produced four annual reports, reminiscent of more recent campaigns to promote the use of forest products as an environmentally and socially responsible choice. In a nut-shell, the Commission called for the reinstatement of wood as a viable alternative to steel and concrete in commercial and residential building projects; improve the quality of products being produced; promote the use of wood for heating and energy production; and disseminate information on best practices and lessons learned for the production and marketing of value added goods. Some of the more notable recommendations included the need to:

- Standardize the size, quality and dimensions of sawn lumber production (a suggestion repeated since the 1850s);
- Restock and improve the quality of degraded hardwood forests in southern Québec with valuable trees (e.g., oak, butternut, walnut, ash, cherry, etc.) for use in cabinetry, furniture building, and other fine wooden articles;
- Support the production of engineered wood⁶¹⁰ such as the development of beams and trusses, using the overlay of compressed and bolted strips of wood to produce laminated structures, lighter than western timber, but more resistant to stress, in lengths of up to two hundred feet;
- Adjust production to demand in order to maintain price ratios favourable to producers;
- Promote the use of firewood and charcoal for heating;
- Reduce unemployment by using all available hands to reforest public waste lands, community-held wood lots and build forest roads to improve access;
- Create syndicates or cooperative associations of sawmill owners to facilitate the development of common standards, advise members on market trends, regulate the production to match market demand; adopt common pricing agreements to improve wages and cost recovery, share information, and reduce aggregate demands on overexploited private forests; and

⁶⁰⁹ The Commission was replaced with the "Bureau des produits forestiers," and reduced in scope to a statistical book keeping function of what was being produced, instead of bringing attention to what ought to be produced.

⁶¹⁰ Piché suggested the need to develop engineered wood products for building use as early as 1928. See RCFS, 1928.

- Limit the number and capacity of sawmills, and favour a more efficient use of available resources by integrating sawmills to pulp and paper facilities to prevent the needless waste of larger sized timber; diversify output; maximize returns on every tree cut; and promote a more complete use of available wood fibre by recycling waste in pulp and paper manufacturing.⁶¹¹

Unfortunately, unless good ideas are backed by positive changes in the incentives and constraints resource users face, the likelihood of change in the habits and behaviours of targeted user groups is indeed very slim. Hence, when economic activity picked-up again in 1936, the pulp and paper industry quickly returned to its former habits of overproduction, leading to yet another spell of economic slowdown, job losses, and reduced wages from 1937 to 1939.⁶¹² Nevertheless, optimism remained strong. Duplessis was elected premier in August 1936, the influential position of deputy premier was handed over to Avila Bédard, who held on to his position until 1960 and also served as Chief of Forest Service from 1936 to 1939. Although Bédard had trained alongside Piché at Yale in 1905-07, his style was altogether different and his support for the pulp and paper industry was unyielding.

7.3.4 Return to Business as Usual

Referring to the familiar but unfounded idea that colonization was forcing operators to work ever further in the interior – where the climate was harsher, soil conditions were poorer, and trees were necessarily smaller – Bédard argued the need to do away with diameter restrictions altogether. Since the sawn lumber had become a mere shadow of what it once was, Bédard claimed, and tree size mattered little for pulp and paper production, the “arbitrariness” of past diameter restrictions had to be supplanted by shorter and more productive rotations that would do more to maintain the profitability of forestry operations in a context of growing industrialization:

“Il reste que la culture du petit bois diamètre permet à l'exploitant de revenir, à de moins longs intervalles, aux mêmes endroits. C'est là un avantage; les capitaux que représentent, à l'état dormant, les arbres en croissance étant moins longtemps immobilisés, plus vite productifs. Reppelons-le, l'exploitation forestière consiste dans la récolte d'un produit spontané de la nature. Une telle récolte, pour être profitable,

⁶¹¹ See the Second, Third and Fourth Annual Reports of the Quebec Forest Products Commission in the Reports of the Minister of Lands and Forests (1933, 1934 and 1935). Between 1934 and 1936, “La Commission des opérations forestières” was instituted to improve the livelihoods of forest workers.

⁶¹² RCSF, 1937-38, p.17 & 1938-39, p.33.

doit être substantielle à l'unité de surface, c'est à-dire plutôt intensive qu'extensive."⁶¹³

To conform to this new ideal and ensure the successful development of the pulp and paper industry, operators were now required to "*subordinate cutting to the potential growth of a forest*" (i.e., "*la possibilité de la forêt*") by completing inventories of their cut-blocks using a standardized form developed by Piché in October 1929 (i.e., permit "B-44," in reference to chapter 44 of the Revised Statutes of 1925). In conformity with article 69 (inventory and management plan) of the revised statutes, *overmature* forests and large-diameter trees left standing in previously cut areas had to be harvested; scattered seed trees were to be left standing in mixed or broad-leaf dominated systems only; timber damaged by wind, fire or insects had to be harvested; unless prescribed for, trees less than 60 years of age were to be left uncut; and in order to take advantage of small diameter trees, clear cuts (i.e., "*coupes claires ou blanc-étoc*") were to be privileged in areas where softwoods were likely to regenerate fully and easily.⁶¹⁴ By 1939, operators were required to complete long term decadal forest management plans,⁶¹⁵ as well as annual plans that had to be submitted to the Ministry of Lands and Forests for approval three months ahead of planned operation. According to this new management scheme, the total amount of wood taken could not exceed the annual or periodic allowable cut (if measured against the decadal planning estimates), except in situations where it would be desirable to "*normalize*" forest growth (i.e., produce even-aged forests).⁶¹⁶ Since the favoured optimum was to normalize forests everywhere, the meaning of a "sustainable yield" became a highly subjective notion that could be manipulated to achieve nearly any political-economic end. Finally, in spite of Duplessis' criticism of the way forest concessions were sold under the Liberal government, the Premier wasted no time in using his own majority government in 1937 to repeal the 1910 export ban on unmanufactured wood arising from public lands (replaced with the need to acquire a transportation permit – 1 Geo VI, c.29), and bypass the requirement of 1872, pertaining to the public sale of timber limits. Together with the adoption of a permanency clause (instituted under Taschereau in 1934, 24 Geo. V. c. 21), which granted automatic renewals to those who

⁶¹³ RCSF, 1937-38, p. 23

⁶¹⁴ *Ibid.*, pp. 24-25.

⁶¹⁵ RCSF, 1938-39, pp. 62-63.

⁶¹⁶ *Ibid.* The periodic sustained yield principle allowed operators to exceed the annual allowable cut, as long as overall rates of appropriation respected the estimated 10 year growth forecast.

respected departmental regulations (leading to long term guarantees of 10 to 50 years),⁶¹⁷ Duplessis clearly showed that he was indeed "the boss,"⁶¹⁸ as most of his predecessors had done before him.

With these final specifications, the management of public forests remained virtually unchanged until the 1970s. The close relationship that was forged between government and industry during 38 years of consecutive Liberal majorities was there to stay. And in spite of repeated warnings that appropriation rates were exceeding the reproductive capacity of forests in various regions of the province (especially in the continued absence of forest maintenance activities), production levels continued to increase as if the system was indeed boundless (see Table 7.2 above). Following in the footsteps of his predecessors, Duplessis fervently pursued the expansion of resource-based industrial development like no other premier before him. Using his majority government to advantage, he unashamedly passed private bills in favour of the forest industry and mining operations⁶¹⁹ that left little doubt over his intentions. In 1946 for instance, Duplessis passed an Act "*for the purpose of securing the continuity and progress of the [forest] industry*"⁶²⁰ that handed over 1,755 square miles of "*renewable cutting licenses*" to 9 different operators that had depleted their reserves. Among the entitlements that were so granted by the Act in question, the Gaspesia Sulphite Company was given unlimited rights "*to build, maintain and use roads telephone or electric transmission lines and camps upon vacant crown lands.*" But should it need "*to occupy other lands and is unable to agree with owners or possessors of such lands,*" the Lieutenant-Governor in council maintained "*the right to decree real servitudes*" (Article 10) to be determined by the Provincial Transportation and Communication Board whose decisions were final (i.e., no right of appeal). Similarly, Duplessis past a massive land swapping agreement in 1945 as part of an *Act respecting the Industrial Stability and Progress of Québec* (Act 9 Geo. VI, c. 29). Pursuant to the interests of some of the largest limit holders in

⁶¹⁷ See Rapport du Chef du Service Forestier, 1939-40, p. 38. Some leases were reported to be 75 and even 150 years. However, No evidence of such extensive arrangements were found in subsequent reports.

⁶¹⁸ Duplessis was widely referred to as "le boss" by friends and foes alike (see Black, 1977).

⁶¹⁹ One of the more famous examples of Duplessis' resource policies is Act 10 Geo. VI, c. 42 (1946), which gave Hollinger North Shore Exploration Company unlimited prospecting rights over a 3,900 miles² area bordering Labrador. According to the terms of the enactment, Hollinger had until 1958 to begin mining operations on a territory that was not to exceed 300 miles² in exchange of an annual rent of \$100,000 dollars and a 7% tax on profits. It was spared the obligation of paying crown dues on the extracted minerals (like all other firms at the time), which led to the famous accusation that Duplessis sold the rights to Québec's north shore iron ore for as little as 1¢ per ton. See also Black (1977).

⁶²⁰ Preamble to 1946 Act 10 Geo. VI, c.25

the province such as the Canada Paper Company, the Canadian International Paper Company, the Anglo-Canadian Pulp and Paper Mills, and the Québec North Shore Paper Company, among others, and the need to “*considerably increase their industrial operations and to bring new industry to Québec*,” the government considered it “*advisable to place at their disposal the forest reserves necessary to stabilize such undertakings and to enable them to develop normally*.” By doing so, government posited that the legislative enactment would “*favour the utilization of... timber that has matured and is exposed to loss through decay*” and further “*help bring stability and contribute to the settlement of post-war problems, [including] the stabilization of Canadian money on foreign markets*.” While the latter Bill was introduced to correct the problem of speculative land hold and concentrate reserves nearer to existing facilities, the redistribution effort did nothing to improve access for less intensive forms of resource use or stimulate investments in resource maintenance activities.

7.3.5 Sustaining the Unsustainable

Over time, the palpable search for an independent and objective voice within the government apparatus, which Gustave Piché sought to bring during the first 25 years with the Forest Service, eventually dissipated (save the exceptional but short tenure of Henri Roy between 1939-41 – see below), as the Lands and Forest Department more or less became the public relations arm of the forest industry. While its primary role during the first forty years of its existence was essentially administrative, its ability to affect the progress of forest resource use was progressively restrained by the growing burden of bureaucratic responsibilities and chronic underinvestment.⁶²¹ Since operators followed departmental regulations and forest engineers from either government or industry used the same methods, theories, and frameworks to select the most favourable course of action, technical and operational staff were essentially bounded by the conventions of their profession and the respective interests of their employers. Dissension within the ranks was rare and both faced strong incentives to maintain the *status quo*. In effect, foresters exercised little or no control over the decisions they were asked to implement and their ability to affect resource use outcomes was at best limited. Individuals like Ellwood Wilson and the firm for which he worked (Laurentide Pulp and Paper) were the exceptions rather than the rule. Equally rare

⁶²¹ See Rousseau, L.Z., 1937. Les bases scientifiques de notre économie forestière. Publication de la Société de silviculture de Québec: Québec, p.3; and Gow (1986, pp. 96-98 & 207).

were outspoken critics of government policies who could speak from first hand experience, such as Thomas Maher who left the Forest Service at the start of a promising career in the 1920s because of the way in which he felt public resources were wilfully and knowingly being overexploited to support the growth of the pulp and paper sector and the interests of the pine lumber industry at the expense of the public.⁶²²

But opportunities to speak truth to power did occur. As the post-war economic boom of the 1940s and 50s intensified, foresters, economists and social scientists increasingly called attention to the many problems associated with administration of public forests in the Province. Unfortunately, little if anything was ever done to reduce overexploitation, invest in resource maintenance activities, change existing tenure arrangements, expand community-led agroforestry initiatives, and develop small industries (as more sustainable and equitable alternatives to large pulp and paper manufacturers). Government and industry decidedly had other interests in mind.

The first (and probably the only) official to openly question the collective choices that commanded forest resource use in the province, and the medium to long-term implications of such decisions, was the Chief of Forest Service from 1939 to 1941, Henri Roy. During his brief tenure as the senior-most public servant in the Lands and Forests Department, Roy stated in clear and unequivocal terms what everyone knew. Forests in the most accessible districts of the province, near agricultural and industrial centres were knowingly being overexploited, and none of the systems used for allocating resource rights⁶²³ were productive of sustainable results. Overall, forests were poorly managed, and not enough was done to change the situation:

“L’acuité du problème forestier provient d’un manque d’équilibre dans notre exploitation forestière, d’un aménagement général défectueux, et en définitive, aussi de la négligence à appliquer les règles de la sylviculture. Il devient de plus en plus évident qu’il est plus important pour nous de bien prendre soin des terrains forestiers

⁶²² See Rumilly (1953, pp. 32-34). For a more open critique of public forest management, see Maher (1952).

⁶²³ These included township reserves, domanial reserves, timber concessions, special permits to vacant lands, colonisation lands, and land grants for municipalities, industrial development or infrastructure development.

situés dans notre rayon économique d'activité que de nous préoccuper des réserves éloignées qui ne peuvent éviter des embarras actuels."⁶²⁴

Like most of his peers, Roy insisted that Québec had more than enough wood in the northern latitudes to support the foreseeable long-term needs of the province, but all in all, such stocks were "a poor substitute" for the greater productivity of southern forests. Further, systems nearest to existing "circles of economic activity" were wantonly depleted with little regards to the interests of local communities.⁶²⁵ In regions adjoining agricultural or industrial developments, the rising demand for pulp wood was leading to a growing "scarcity of timber" in the domanial reserve, which was "highly prejudicial to economic development and to small industries."⁶²⁶ Moreover, such reserves, Roy decried, were increasingly being taken over by large-capital holders who stopped at nothing to get the wood they needed to maintain the productive output of their pulp and paper facilities, thus limiting the diversification of the local economy:

*"The installation of plants and mills must...be regulated in view of the reserves of raw material of which they dispose, for if we suffer from forest concessions held inactive [by] speculation, we also suffer from having small units which, attached to big mills, are necessarily exploited on a liquidation basis."*⁶²⁷

The issuance of "special permits" to cut timber on vacant crown lands also suffered from overexploitation and the absence of any provisioning requirement. These permits, Roy indicated, were initially created to aid the lumber industry "handicapped by the gathering up of forest concessions in the hands of ... pulp and paper [manufacturers]." However, instead of diversifying the rural economy, the practice of selling specified volumes of timber was "quickly wip[ing] out the wooded vacant lands close [to] agricultural establishments." Combined with the continuous onslaught of lumberers on private land hold or lots sold for colonization purposes, entire districts were thus being depleted of their valuable timber. In Roy's opinion, the solution to Québec's anticipated wood shortage was relatively clear:

⁶²⁴ RCSF, 1939-40, p. 45, The official English translation is: "the acuteness of our forest problem arises from a lack of balance in our forest exploitation, and from a generally inadequate forest management, as also from neglect in the application of the laws of silviculture. It becomes more and more evident that it is more important for us to take care of forest lands situated within our circle of economic activity, than to worry about distant reserves that cannot save us from our present troubles."

⁶²⁵ *Ibid.*, p. 44-45

⁶²⁶ *Ibid.*, p. 38

⁶²⁷ *Ibid.*, p. 39

*"As an immediate palliative, the commercial cut ... must be reduced to the minimum, and in more prosperous times the people must be urged to ...work in more distant forests."*⁶²⁸

However, *"the only positive solution"* to the recurrent problem of overexploitation was not to endlessly push operators northwards, but to better manage and increase the productive potential of forests by applying basic *"rules of silviculture."*⁶²⁹ Ultimately, this proved a hard lesson to integrate. Instead of adjusting withdrawal rates to the productive capacity of the systems in use (or a designated safe threshold), as Roy recommended, government raised the maximum volume of wood that could be taken from vacant lands (by means of special permits) from 150,000 ft³ to 300,000 ft³ in 1941, in order to support economic development (see above).

Township forest reserves on the other hand, were designed to support the household needs of communities, but evidence suggests that they did not fare better than other portions of the public domain. For not only did the system place few if any constraints on users, which in turn negatively affected the quality and integrity of such forests, township reserves also:

*"cost more in administration than they bring in, because the cuts are too widely scattered in small lots and they require constant vigilance and effective protection against abuses and marauders."*⁶³⁰

While admitting that township reserves were nothing other than an assembly of degraded forest ecosystems – *"the result of consolidations made by the whim of circumstances"* – their purpose remained vital to the communities who depended upon them.⁶³¹ Yet, experience showed that reserves that were *"too small in area"*, were *"soon exhausted"*, and those that were *"too big,"* provided *"an incitement to illegal or commercial cutting."* To protect against abuses perpetrated by *"the very people for whose benefit [reserves] were created,"* Roy recommended fundamental changes to the system of administration and the adoption of a common property or co-management arrangement between community and government:

⁶²⁸ *Ibid.*

⁶²⁹ *Ibid.*, p. 42.

⁶³⁰ *Ibid.*, p. 46.

⁶³¹ *Ibid.*, p. 47 There were 149 township reserves in 1941, covering an area equal to 1,280,853 acres.

*"We [will] despair of enforcing the law which governs them, so long as those who use them fail to realize that such reserves constitute goods that are theirs to care for and conserve, and we are in consequence, brought to the belief that only some co-operative formula will bring about this result."*⁶³²

Although community-led forestry was strongly supported by the likes of the Québec Association of Forest Engineers,⁶³³ and results of experimentation from 1937 onwards, which showed that local cooperatives and common-property arrangements tend to outweigh the returns produced by the dominant industrial model,⁶³⁴ such experiments remained marginal and in fact, have more or less been systematically undermined by government and industry alike in the 50 years that followed the first agroforestry initiatives (Otis, 2001). Outside of the public domain, the dynamics of smallholder behaviour was not much different than what Roy expressed for township reserves. In fact, forests held by private land owners (i.e., settlers and farmers) were in even more deplorable conditions than those held under concessionary rights (Lussier, 1953, p. 171). The reasons for such a poor state of affairs had changed little since Mgr Laflamme began his efforts to raise awareness at the turn of the century (see Chapter VI). In short, the *"generalised dilapidation"* of private forests, as George Maheux (1944, p. 285) put it, was *"born from the greed of profit,"*⁶³⁵ and was maintained by the insatiable needs of an industry that had an interest in purchasing timber exempt of Crown dues, and free of the additional labour costs of extracting timber ever further up-country. Consequently, as much wood was apparently being cut on 12,500 miles² of privately held forests in 1940, as what was produced from the 75,000 miles² that was then under concessionary land hold (Maheux, 1944, pp. 285-286).

⁶³² Ibid., pp. 47-48. Agroforestry cooperatives were initiated by Edras Mainville (Professor at HEC), with the help of the Ministries of Colonization and Lands and Forests. The first "agroforestry colonies" was established in Grande Vallée (150 miles²) in 1937, before being implemented in 10 other sites in Gaspé, Bonaventure, Mattapédia, Chicoutimi and Beauce-Frontenac (covering a total area of 933 miles²) by 1942. (See RCSF, 1943, p. 27).

⁶³³ The idea of establishing community-based agroforestry cooperatives was strongly defended by the Quebec Association of Forest Engineers in 1938: *« Des expériences diverses [suivant l'introduction des méthodes coopératives d'exploitation, d'usinage et de mise en vente des produits forestiers], tant à l'étranger que dans notre propre pays, démontrent que, dans tous les cas, l'exploitation complémentaire des richesses du sol et de la forêt maintient sur un plan convenable le niveau d'existence de la population, assure la stabilité de l'industrie et, comme corollaire, la prospérité générale »* (Programme d'Action et de Politique Forestière pour le Québec, 1938, L'Association professionnelle des Ingénieurs forestiers de la Province de Québec).

⁶³⁴ See discussion on benefits of forest colonies in LaBrie (1950) *La Forêt et le problème social dans le comté de Saguenay*. For an overview of the history, challenges, and benefits of community-based forestry initiatives in Quebec, see Baets et al., (2007) *Portrait of AgroForestry in Québec*; Laplante (1995) *L'expérience de Guyenne*; and Teitelbaum (2010) *L'arbre est dans ses feuilles et la forêt, dans sa communauté: guide sur la foresterie communautaire*.

⁶³⁵ Original text: *"un symptôme inquiétant de dilapidation généralisée née de l'appât du gain"*

Predictably, Roy's strongest criticism regarding the ways in which forests in Québec were wastefully treated and poorly managed came in his remarks on the pulp and paper sector. First, Québec was no longer the undisputed world leader in terms of pulp and newsprint production. Rivals from north European countries that were "*less favoured as to raw materials, but better served by better technique in the forest and in the mills*" helped to reinforce the fact that Québec was doing next to nothing in terms of forest maintenance activities.⁶³⁶ And second, Roy observed that "*the pulp industry, in certain territories, acts like a suction pump on wood supplies which could be used to supply small industries, with much greater profit to the local populations.*" Consequently, many mills had exhausted supplies nearer to their operations and each year, they had to send further and further away from established economic centres to find the supplies they needed, thus increasing the operational and social costs of maintaining production. As for territories that remained abundantly stocked, the virtual monopoly of concessionary rights held by pulp industrialists meant that such areas were essentially "*closed to all other exploitation,*" further limiting opportunities for the development of more productive and efficient uses.

Taken together, Roy believed that there was only one viable course of action "*to correct the defects of an economy*" that was bound to "*creat[e] serious trouble for the future.*"⁶³⁷ Major legislative reforms were needed to better allocate resources and reduce pressure on forest systems by limiting withdrawal rates and by stimulating forest productivity nearer to existing centres of economic activity (see also Asselin, 1944, pp. 110-111). Roy was obviously not alone in his assessment of the situation. For L-Z Rousseau, director of l'École d'Arpentage et de Génie Forestier at Laval University, and former president of the Association of Québec Forest Engineers, the problem Québec faced was not unlike the swidden or shifting agricultural techniques used in tropical landscapes where soils are stripped of their fertility in but a few years before the process was repeated anew in a further and more remote corner of the forest:

"Jusqu'ici notre industrie n'a pas fait davantage, perfectionnant peut-être les méthodes extractives, mais restant oublieuse des lois économiques élémentaires. C'est

⁶³⁶ RCSF, 1940, p.88. According to Omer Lussier (1953, p. 169), the productivity of forests in Sweden and Finland was more than twice (i.e., 29 to 30 ft² per acre) the estimated growth of forests in Quebec (12 to 16 ft² per acre).

⁶³⁷ *Ibid.*, p. 88

ce qui nous a valu la disposition de nos massifs de pin blanc et la ruine de nos sciages. Et qui nous vaudra la détérioration de nos forêts d'épinette si nous n'y mettons ordre dès aujourd'hui" (Rousseau, 1944, p. 76).⁶³⁸

As alluded to on many occasions already, the government never purposefully sought to limit entry nor the size and capacity of sawmills and pulp and paper processing facilities. If anything, it actually encouraged overcapitalization and overproduction by imposing minimum production targets and selling off ever larger limits that could only be purchased by large companies (Asselin, 1944, p.108). This resulted in a concentrated production capacity that vastly exceeded the annual yield (i.e., "la possibilité") of the forests systems in the regions where they were situated:

"C'est ce qui donne lieu... à cette situation paradoxale d'usines géantes qui doivent, pour continuer de produire, recourir à l'importation de leur matière première par ce qu'elles ont négligé les règles de la sylviculture, quant elles sont pourtant bâties à deux pas de la forêt" (Rousseau, 1944, p. 76).

The corollary to such large capital expenditures is that few pulp and paper manufacturers were motivated to conserve forests, invest in maintenance activities, or spend additional time and energy to use resources more efficiently (Asselin, 1944, pp. 108-109). What mattered most were cost recovery and the need to generate returns as quickly as possible:

"Dans la crainte de perdre ses droits et sa mise de fonds, il est tout naturel et bien explicable que le concessionnaire cherche à rentrer dans son capital le plus tôt possible et ne soit nullement intéressé à faire des coupes d'amélioration dont les résultats ne pourraient être profitables qu'après plusieurs années." (Lussier, 1953, p. 171)

Appropriators were thus faced with strong incentives to reduce their costs to a bear minimum, which in turn produced massive social and environmental externalities (Minville, 1944, pp. 308-309). The promise of trickle down economics, predicated on the assumption that industry profitability would lead to individual prosperity and social welfare gains was proving disastrously wrong for forest-dependent households and communities across the

⁶³⁸ See also Rousseau, L.Z., 1937. *Les bases scientifiques de notre économie forestière*. Québec: Publication de la Société de silviculture de Québec, p.2: "Jusqu'ici on a exploité tout le territoire d'accès facile, oubliant d'assurer sur ce même territoire la reconstitution des massifs autrement qu'en laissant à la nature le soin d'y pourvoir."

province.⁶³⁹ The unambiguous failure of industrialisation, initiated half a century earlier under Premier F-G Marchand in 1897 and defended ever since by his successors was perhaps best summarised by Minville (1944, p. 333):

“On a créé littéralement le vide, ruiné l’une des principales sources de revenus de la population. Qui d’entre nous ne connaît une ou plusieurs localités où la forêt a été ainsi rasé et dont la population désormais doit chaque année aller chercher au loin tout ou partie de sa subsistance. Il faut avoir vécu dans l’un de ces villages où brusquement, par l’épuisement du bois ou toute autre raison, l’exploitation forestière cesse, pour se faire une idée exacte des conséquences sociales et humaines de pareil événement. Or, de ces anciens centres forestiers tombés dans la médiocrité économique et le désarroi social par suite de la cessation de l’exploitation forestière, on en croise dans notre province autant dire à tous les tournants de routes....Et nous connaissons tous des localités, voire des régions entières, qui sont menacées à plus ou moins brève échéance, d’un pareil sort.”

The conditions within which forest jobbers and labourers operated were so unstable and poorly remunerated that a general strike broke out in the lumbering camps of Témiscamingue during the winter of 1933-34, that threatened to spread across the entire province if nothing was done to bring order to the situation. The crisis led to the creation of the “Commission des opérations forestières” (1934-36) and eventual legislative action (24 Geo. V, c. 22), which imposed a minimum salary of \$26 per month (equal to 26 days of work, or \$1/day) (see Minville 1944, pp. 315-316). Even though a series of amendments and orders-in-council raised the average salary to \$57.20 by the onset of the 1940s (*Ibid.*, pp. 320-322), many issues were left unresolved, including the migratory nature of forestry operations and the socio-economic consequences for forest dependent communities. With the gradual mechanisation of lumbering activities, shortened work season, and the need to carry out operations in ever more remote locals, manpower in the lumbering camps became increasingly unstable (Lussier, 1953, p. 172). Fewer workers were willing to offer their labour, and of those who reluctantly did so were, like their employers, primarily motivated to capture the benefit of their labour as quickly as possible, caring nothing of the damage their

⁶³⁹ Minville (1944, p. 310) writes: “Malheureusement, il ne semble pas que jusqu’ici notre politique forestière se soit beaucoup embarrassée de considérations sociales, qu’elle se soit même posée le problème du grand bénéfice social de l’exploitation de la première de nos richesses naturelles. Elle paraît avoir procédé d’une pensée unique : obtenir de la forêt le plus haut rendement économique – et ce qui est plus grave, le plus haut rendement économique immédiat. L’exploitation forestière dans notre province est, en très grande partie, pour ne pas dire en totalité, industrielle et capitaliste. ... La forêt est considérée autant dire exclusivement comme source de matières premières, donc comme richesse à exploiter sur la base du plus haut rendement financier, le reste, c’est-à-dire le bien-être social, devant en découler automatiquement.”

haste might cause, the prescriptions foresters provided, or the idea of forest conservation altogether (*Ibid.*).

The incentive to reduce operational (as well as forests maintenance) costs affected not only the behaviour of forest users, but government itself. The concurrent and somewhat complicit interests of the State, as possessor of Crown lands, and the forest operator, as concessionaire with usufructuary rights to the timber thereon, resulted in a situation where neither party, according to Lussier (1953, pp. 170-71), was motivated to assume responsibility for the management and conservation of public forests:

"Ces deux associés ont tendance à rejeter l'un sur l'autre la responsabilité de la conservation et à ne considérer que l'intérêt immédiate qui consiste à retirer le maximum de revenus avec le minimum de déboursés. Sans doute que le premier a en mains tous les pouvoirs, mais sans la bonne volonté, la coopération et la conviction du second, il lui est impossible d'obtenir des résultats satisfaisants à cause de l'immensité de la tâche à accomplir, du caractère des fonctionnaires trop peu nombreux et trop mal rétribués, de l'instabilité des administrations et de l'ignorance et des préjugés de la population qui peut tout aussi bien croire que tout va pour le mieux dans ce domaine, ou bien que nous sommes tellement proches du désastre qu'il n'y a pas moyen de s'en sauver..."

Hence, the inability (or unwillingness) of government to either assume provisioning costs or force industry to shoulder forest maintenance activities meant that overall investments were sparse, and what little was done, was usually carried out at the expense of the public treasury. Each year, the government invested some \$70,000 dollars on reforestation activities and another \$50,000 to maintain tree nurseries. Between the start of the public nursery initiative in 1908 and 1944, some 17,000 acres of forests were replanted by concession holders (mostly between 1910 and 1925), 38,400 acres were restocked by the Forest Service, and another 3,000 acres were improved by farmers (Boutin, 1944, p. 135). Given that reforestation by concession holders was essentially performed on privately held woodlots, the level of effort on public lands (i.e., 38,400 acres by 1944) had barely begun to scratch the surface of the 3,000,000 or so acres of waste lands that Piché so often referred to. However, with an average cost of \$10 to \$12 per acre, the government's motivation to do more in this sense was quite limited (Asselin, 1944, p. 102). Further, since depleted reserves could always be redeemed by fresh grants of vacant forestlands, the need to invest in any

kind of forest maintenance activity obviously appeared as unnecessary and expensive (Maheux, 1944, pp. 286-287; Minville, 1944, pp. 332-333). In fact, the ease with which large forest operators could bypass the administrative hurdle of the Forest Service and petition the executive directly for their resource needs provided a strong deterrent against any long term investment (Lower, 1936, p. 82; Lussier, 1953, pp. 170-171). Consequently, the system that evolved during this period (and maintained thereafter) was based on a gradual and more or less systematic depletion of the virgin forest cover, causing socio-economic upheaval in forest-dependent communities, and the gradual loss of forest productivity through overcutting and the negligence of basic management activities.⁶⁴⁰ In the words of Bernard Fernow:

*"Hitherto, governments have looked upon the forest either as an inexhaustible resource like air and water, or else as an exhaustible, but non-restorable resource, like the mines. They have pulled the house to pieces and sold the brick instead of keeping it in repair and securing the rents by proper management."*⁶⁴¹

7.4 Discussion and Conclusion

Over time, disregard for the threats posed by overexploitation and the near complete absence of forest maintenance activities led to the demise of Québec's pineries, shifts in the composition and structure of forest ecosystems, and the gradual loss of valued stocks through the continuous and systematic onslaught of selective high-grading. In the process, the "dark" forest canopy of mixed coniferous growth that dominated the Laurentian and Appalachian uplands eventually turned "green," as the faster growing broadleaf understory outcompeted the slower growing softwoods. Within a matter of decades, the forest industry changed not only the character, dynamics, and composition of the forests in the southern portion of the province, they also changed their economic value – changes that would take decades for natural regenerative processes to correct. Following the decimation of white oak at the onset of the 19th century, the pineries and shade-tolerant hardwoods sustained the sawn lumber industry and the much denounced squared timber trade until the early decades of the 20th century. Eastern hemlocks were largely squandered for their bark, and with the arrival of the pulp and paper industry, spruce and fir were gradually depleted from the Ottawa Valley and

⁶⁴⁰ "L'exploitation forestière sur les terres publiques se pratique exclusivement dans des forêts vierges ou parvenue à maturité. Ceci contribue jusqu'à aujourd'hui à faire oublier le fait principal qui est la capacité de production." (Lussier, 1953, p. 172)

⁶⁴¹ Fernow, B. E. 1909. What We Want, in *Report of the Tenth Annual Meeting of the CFA*, p. 76.

along the major tributaries of the St-Lawrence (St. Maurice, Ottawa, Saguenay, St-Francis, Chaudière, etc.) where mills were mostly concentrated.

The causes and consequences of unsustainable patterns of forest resource use were certainly well understood. Historical evidence amply supports the notion that actors were aware of the structure of the situation that fostered such behaviours, and were cognizant of remedies that could help absorb maintenance costs and reduce appropriation rates (e.g., stimulate less resource intensive value-added production, favour cooperative small-holder arrangements, exact higher crown dues, put a tax on timber to support maintenance costs, change tenure arrangements to foster a longer term perspective, limit entry, improve monitoring and enforcement, classify soils to better determine land use rights, diversify sources of public revenue,...). Yet, few of these measures were ever implemented and when they were, seldom did they affect the existing distribution of benefits or limit pressure on forest resources. The question that must be asked therefore is why? Given that there was no shortage of knowledgeable, skilled, and experienced foresters and administrators, nor was there a lack of viable solutions to increase the robustness of resource institutions or improve forest conservation (i.e., sustainable resource use), then what prevented change from being pursued? Within-case analytical insights drawn from the 19th century sawn-lumber industry and the 20th century shift to pulp and paper production both point to the central role of government in defining institutional arrangements that supported the interests of the few over the wellbeing of the many.

Until the advent of industrialisation, towards the end of the 19th century, governments were principally motivated to secure revenues for the public coffers. In turn, dependency on resource rents limited the range of allowable actions that succeeding governments could take against the interest of lumbermen, and since every foot of lumber cut was a penny earned, no holder of public office was ever motivated to curtail the amount of wood that lumberers were prepared to take out. While the conservation ideal loomed large in shaping political discourse, its application was consistently limited to the control of forest fires and the spread of settlement. With the development of the pulp and paper industry however, the role of government changed dramatically. Given the sector's substantial start-up costs, the promise of bountiful forests was no longer sufficient to attract foreign investors. Other tangible

benefits had to be offered, including large infrastructure developments (e.g., roads, railways, dams and reservoirs), permanent sources of energy (i.e., waterpower and eventually electricity), cheap and abundant supplies, and a dependable workforce. Thus, the role of government changed from landlord and rent collector to business partner and rent developer. As Lindblom (1979, p. 175) put it, “business needs inducements” in market-oriented systems “if it is to do its job” and by holding the keys to all Crown resource assets, the executive government was ideally suited to respond to the needs and interests of industry. Operators were alleviated of the burden of having to maintain the productivity of their concessions. Those who exhausted their reserves could count on the government to obtain new concessions or access timber on special reserves created for such situations. As the pace of exploitation quickened and the exhaustion of available reserves neared, appropriation rules were amended to give operators greater discretionary authority in the application of management decisions. As long as overexploitation could be rationalized on paper, operators were more or less given the freedom to pursue the course of action that supported their interest.

Whether the unsustainable forest use was maintained because it was in the interest of government or because limit holders were able to exert sufficient pressure on the executive matters little for discerning the influence of constitutional choice rules. For both phenomena are tied to the limited constitutional constraints of the Canadian (and provincial) parliamentary system, the right of the executive to use Crown resources as if the latter were its private property, the absence of inclusive and authoritative decision-making arrangements – such as those proposed by Gerring and Thacker (2008, see Chapter III), and the limited capacity of any parliamentary opposition to affect change. Further, systems marked by the concentration of decision-making authority arguably makes it easier (if not more efficient) for third party interests to concentrate their own lobbying or rent-seeking efforts. In such settings, Fernow warned, “*the exigencies of the present are often an overwhelming superior argument against the needs of the future.*” Since governments depend “*on direct support by the present day masses, the politician, be he ever so farseeing is bound to let the present day considerations weigh the most.*”⁶⁴² Given that investments in resource maintenance activities

⁶⁴² Fernow, B.E. 1909. What We Want, in *Report of the Tenth Annual Meeting of the CFA*, p.74

constitute an investment in the future, and the benefits of such investments are likely to be reaped by others, public choices in such settings will naturally tend to favour present-day interests over other considerations:

"It takes...a strong government to disturb long established usages, especially when the change means curtailment of revenue, increase of expenditure, and possibly a strong opposition actuated by fear of material loss. Political exigencies make it desirable to defer action and to leave another administration to wrestle with problems that can be postponed" (Ibid.).

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CHAPTER VIII: PROLOGUE TO A MODERN DILEMMA

8.1 Introduction

The death of Premier Maurice Duplessis in 1959 brought an abrupt end to nearly two decades of conservative, parochial, and paternalistic policies that shrouded the province in what is commonly referred to as the *great darkness* (“*la grande noirceur*”). Yet, Duplessis’ economic policies, and his stance on natural resource development in particular, differed very little if any from the path established by his predecessors, such as Premier Louis-Alexandre Taschereau. His anti-union stance, heavy-handed use of patronage and strong support for foreign-owned and increasingly large and powerful resource industries were a continuation of the past, not a break from it (Black, 1977; Roby, 1976; Rocher, 2004). If anything, his belief in the virtues of traditional livelihoods, rural communities and religious servitude made him the first Premier in the province to champion the idea of community-based forest resource management, though experimentation with such approaches remained marginal relative to the overall industrial thrust of the sector (see Chapter VII). Consequently, by the time Jean Lesage took over as Premier in 1960, over 90% of the public domain attributed to the forest sector lay in hands of only nine pulp and paper companies.⁶⁴³ In fact, the entire natural resource sector in Québec was essentially governed by foreign-owned oligopolies, which meant that industry was primarily extractive, with little or no investments in the transformation of raw materials to capture the spread effects found in more advanced industrial economies (Gaudet, 1980, p. 255).

Stepping out from under the tutelage of the Catholic Church and Duplessis’ stronghold over the political-economic affairs of the province, the state of the situation became readily obvious: “*Economic progress has occurred without us,*” decried Premier Lesage, and the time had come for the French speaking majority to fully participate in the development of the

⁶⁴³ MTFQ, 1971, Exposé sur la politique forestière, Tome 1, Prospective et problématique, p 185.

province.⁶⁴⁴ To correct the situation, improve *québécois* involvement, and further the province's economic progress, Lesage initiated sweeping changes that affected nearly aspect of the province's cultural and socioeconomic conditions. In less than a decade, the "quiet revolution" ushered in a vast modernisation agenda of the Québec "state" that arguably changed the course of history in the province.

As detailed in this chapter, the reforms undertaken by Lesage and his successors also had dramatic effects on the forest sector. Between 1960 and 1990, the industry became fully mechanized; two important institutional reforms were passed; the entire sector was restructured to encourage a more complete use of available timber; and forestry operations had spread to the furthest reaches of the Boreal forest. However, in spite of these various transformations, other, arguably more important considerations remained unchanged. First, not only did the basic expansionist model of public forest resource use remain unchallenged, the pace and intensity of forest operations actually accelerated during the period, aided in large part by federal and provincial subsidies. Second, the mounting threat of appropriation and provisioning problems associated with the historical failure to curb the industry's appetite and/or increase investments in maintenance costs gained increased attention during the period, but efforts to deal with these problems remained woefully insufficient. Third, in spite of investments and related restructuring efforts, little or no attention was given to need to diversify the industry and further product transformation to reduce pressure from commodity-driven resource exploitation and further regional employment. Fourth, the fundamental yet historically flawed assumption that "la possibilité forestière" could be positively and objectively identified for complex systems and at scales that arguably exceed basic human imagination was left unquestioned. And finally, the pivotal role of government in defining public choices remained strong, though increasingly (and predictably) conditioned by the interests of powerful industry leaders. Arguing that the direction of institutional change followed the path established since the turn of the 20th century, this chapter provides a brief overview of the evolution of forest institutions from 1960 to 1986.

⁶⁴⁴ DAL, April 3, 1963, p. 780: "le progrès économique s'est fait sans nous, les Québécois". To amend the situation, Lesage argued that economic progress ultimately depended upon four key areas: education, agricultural development, industrial growth and public finances (p. 783); see also DAL, 12/4/62, pp. 6-12 & 36-42.

8.2 Assessing the State of the Forest Sector

The quiet revolution was instituted through two through interdependent strategies (Gow, 1986, pp. 297-298). First, to fully understand the overall structure of the state of affairs in Québec, detailed investigations of every working part of the province's political economy were undertaken. Commissions, inquiries, and parliamentary committees were appointed to assess the administration of public affairs in all of its facets and make recommendations as required.⁶⁴⁵ In keeping with the socio-cultural and economic aspirations of the quiet revolution, appointed commissioners invariably observed that Québec lacked coherent policies in nearly every aspect of its administration, and the conclusion was nearly always the same: changes were needed and only government could solve the province's woes. And second, in order to counterbalance the large share of foreign-ownership in the province and better direct its economic development, the state's ability to leverage funds was used to direct public investments in key sectors of the economy and strategically support infrastructure developments. To this end, hydro-electric developments were nationalized in 1962-63 to better control prices and financial returns. State-sponsored financing instruments⁶⁴⁶ were created to stimulate private investments by means of financial inducements (e.g., low-interest loans, investment guarantees, and subsidies), while enabling government to capture a greater share of returns from its natural resource assets. And in order to offset private risks and reduce entry costs, Québec also created a number of state-corporations to supplement the work of its line departments by carrying out strategic investments in targeted areas.⁶⁴⁷

Within this broad context, the forest sector was a primary concern. Even though the sector's contributions to public revenues had become, by the mid 1960s, a mere shadow of

⁶⁴⁵ Effectively, Lesage renewed a tradition of inquiry that more or less disappeared after Confederation. Between the late 1830s and 1860s, the administration of public affairs was regularly investigated by various committees and commissions. See Chapter V.

⁶⁴⁶ For example, the "Société générale de financement du Québec (SGF) and the "Caisse de dépôt et de placement."

⁶⁴⁷ These public corporations include contributions towards mining exploration (SOQUEM – Société québécoise d'exploration minière); iron-ore production (SIDBEC – Sidérurgie du Québec); gas and petroleum exploration (SOQUIP – Société québécoise d'initiatives pétrolières); pulp and paper manufacturing (SOGÉFOR – Société de gestion forestière); hydro-electric development (SDBJ – Société de développement de la Baie James); and forest exploitation, and salvage cutting (REXFOR – Société de récupération et d'exploitation forestière).

what they once were⁶⁴⁸ – with administrative overruns that were nearly as high as the returns that were generated⁶⁴⁹ – the industry still employed more people than any other sector of the provincial economy and its health was a vital indicator of the overall state of affairs in the province. Consequently, the wellbeing of the forest industry was central to the preoccupations of government during this dynamic and politically charged period. And what concerned public officials more than anything else was the ongoing decline of the industry as whole.

Relative to the rest of Canada, Québec's contribution to the country's overall production (including pulp, paper and sawn lumber from both public and private sources) diminished from a high of 41% in 1946 to 25.1% in 1962.⁶⁵⁰ While the net value of sawmill production rose slightly between 1950 and 1962 (from 12.1% of the total Canadian output to 13.7%), output in the pulp and paper sector diminished from 43.4% in 1949 to 37.2% in 1962.⁶⁵¹ And in terms of global market shares, Québec's newsprint production (the province's chief export) went from 28.7% in 1950 to less than 19% in 1965.⁶⁵² Awareness that the industry was slowly but surely losing ground prompted officials to take a number of short term precautionary measures, coupled with the first ever modern-day public inquiry into the state of the forest sector.

As part of the government's overall effort to regain control over the use of public lands and the allocation of available timber, the system of concessionary grants was replaced in 1963 by limited timber sales within the domanial reserves.⁶⁵³ In 1964, it introduced legislative changes, which, for the first time, provided incentives in the way of reduced

⁶⁴⁸ The share of public revenues, derived from the forest sector fell from 10.7% in 1940-41 to 3.3% in 1950-51, 2.7% in 1960-61, and only 0.8% in 1970-71 (Gow, 1981, p. 61). As reported by Bélanger Commission (Québec, 1965, p. 204), this trend affected all of the natural resource sectors. For the year 1964-65, returns from all of Québec's natural resources (including Hydro, mines and forests) amounted to only 4.4% of total revenues, 70% of which was dedicated to administrative expenses, services to industry and/or capital investments.

⁶⁴⁹ Expenses for the management of crown forests rose sharply towards the end of the 1960s. As detailed in Malenfant (1987, pp. 108-111), expenses relative to revenues steadily increased during the 20th century from an average of 17% between 1900-09, to 21% between 1910-19, 25.5% between 1920-29, 45% from 1930-39, 39% from 1940-49, 53% from 1950-59, and 90% from 1960-69.

⁶⁵⁰ Bélanger Commission (Québec, 1965, p. 181, Table VIII-2). Overall production in Québec fell from 1,073,000,000 ft³ or 30,383,976.5 m³ in 1946 to 876,000,000 ft³ or 24,805,557.7 m³ in 1962.

⁶⁵¹ *Ibid.*, p. 185 (Table VIII-8) and p. 182 (Table VIII-4) respectively.

⁶⁵² The Council of Pulp and Paper Producers of Québec. 1972. *The Competitive Position of the Québec Pulp and Paper Industry: A submission to the Parliamentary Committee on Lands and Forests*, p. 29, Table 9.

⁶⁵³ MTFQ 1965. *Exposé sur l'administration et la gestion des terres et forêts du Québec*, Québec, pp. 32-33. Timber sales were conducted through supply contracts that limited purchaser entitlements to specific volumes and kinds of wood.

stumpage fees to operators who willingly performed forest maintenance activities within their concessions (e.g., reforestation and release cutting).⁶⁵⁴ Finally, in a bid to stimulate productivity and improve access to previously un-exploited reserves, the federal and provincial government built some 900 miles of forest roads between 1960 and 1965.⁶⁵⁵ However, before any further changes could be implemented with effect, a more thorough investigation of the factors affecting the different strands of the industry would be required.

The first modern public inquiry on the management of public forests⁶⁵⁶ was held in December 1965, and its conclusions confirmed what Henry Roy and others anticipated more than two decades before (see Chapter VII). In essence, the gradual depletion of forest reserves (i.e., overexploitation and insufficient maintenance activities) nearer to processing facilities was forcing large concession holders to purchase limits ever further away from their operations. Over time, this contributed to an irrational and uncoordinated system of land use that increased the collective costs of transportation, and prevented other user groups from accessing wood less suited for pulp and paper manufacturing, thus contributing to the demise of the sawn lumber industry.⁶⁵⁷ The problem again, as the Bélanger Commission recognized, was intrinsically tied to the absence of any effectual measure, constraint, or incentive to maintain the productivity of public forests and to extract only that which the system could actually produce on a sustained basis.⁶⁵⁸ Even though limit holders systematically regarded their renewable (and therefore revocable) licensing arrangement as an entitlement to use public forests as if their own private property,⁶⁵⁹ they never hesitated to use the real tenuous nature of such concessionary land hold to divest themselves from the obligation to invest in forest maintenance activities.⁶⁶⁰ As presented in the proceedings of the Bélanger Commission, concessionary land rights never provided a sufficiently strong incentive for

⁶⁵⁴ R.S.Q. 194, c. 93, s.4 & 5 / c.92.

⁶⁵⁵ Forest-access road construction program, jointly financed by the provincial and federal governments. See RMTF 1964-65.

⁶⁵⁶ *Exposé sur l'administration* (1965). Some 44 memoranda were handed to the commissioners.

⁶⁵⁷ Bélanger Commission, (Québec, 1965, p. 188); See also *Exposé sur l'administration* (1965, p. 44).

⁶⁵⁸ *Ibid.*

⁶⁵⁹ *Ibid.*, p. 189. The Bélanger Commission seriously questioned the legal foundation underlying the concession holders' ability to transfer (i.e., sell) appropriation rights to unused portions or stocks of their concessions to third parties (i.e., "permit holders"). Since most of the accessible public domain lay in the hands of concession holders, operators were allowed to turn their (revocable) concessionary titles into a *de facto* monopoly over the public domain. Consequently, "whenever concession holders agree[d] to lease timber licences on certain unused varieties [of trees], they charge[d] two or three times the regular dues" or a premium averaging \$5,000 per square mile, plus government transfer fees of \$65 for the sale of limits that were originally acquired for \$1,000 or \$1,200 per square mile."

⁶⁶⁰ *Exposé sur l'administration* (1965, p. 44): "Le concessionnaire invoque souvent la précarité de ce mode de tenure pour ne pas investir en vue d'augmenter la productivité du territoire qui lui est concédé."

operators "to concern" themselves "with reforestation and silviculture", nor was it ever used to oblige operators "to cultivate [or] replace the forests" they used.⁶⁶¹ However, since operating costs in Québec were reportedly higher than in other Canadian jurisdictions,⁶⁶² the industry claimed that its ability to assume further liabilities, for the care and maintenance of the forest systems was decidedly limited. For any additional burden would likely interfere with "the economic activity, which their development must foster and stimulate in the community." Hence, if the overall performance of the forest sector was to be improve, then state intervention would be required, as reported in the 1965 exposé on the administration of the public domain:

*"La forêt étant l'une des richesses les plus importantes de notre territoire, il appartient donc à l'État de prendre les mesures nécessaires pour en assurer la conservation et l'exploitation rationnelle. La première période dans l'organisation de notre exploitation forestière est révolue; il n'est plus possible de laisser l'initiative des individus et des groupes s'exercer librement sans plan d'ensemble et sans coordination. Du point de vue social et économique, il est important aujourd'hui d'assurer la permanence de cette richesse en vue..."*⁶⁶³

In short, management of the public domain had to be placed in the hands of government if public interest was to be met, and resource rights had to be re-allocated if the use of available wood was to be optimized.⁶⁶⁴

8.2.1 The End of Forest Concessions

The changes envisioned by Lesage and his government never had a chance to materialize. A change of government in 1966 put a stop to the initiative and it was not until the Liberals were returned to power in 1970 that the findings of the 1965 inquiry were again reconsidered. The intent to give legislative meaning to the idea of publicly managed forests

⁶⁶¹ Bélanger Commission, (Québec, 1965, p. 189).

⁶⁶² *Ibid.*, p. 184.

⁶⁶³ *Exposé sur l'administration* (1965, p. 21): "il n'est plus possible de laisser l'initiative des individus et des groupes s'exercer librement sans plan d'ensemble et sans coordination." Further, in a planned market-economy, it was considered more practical to allocate resources through private bills, rather than general public policies: "...dans une ère d'économie dirigée et de planification, il est beaucoup plus efficace de... procéder par des lois particulières aux conditions déterminées par la législation" (p. 31).

⁶⁶⁴ The Bélanger Commission went a step further in its recommendations. To deter operators from withholding large portions of public forests from economically valued ends, the commission (unknowingly) recommended a return to the 1851 regulatory amendment of increasing ground rents on unused portions of their concessions, to "mak[e] it costly to keep timber lands undeveloped" and encourage concession holders "to re-timber Crown forest lands" by providing a rebate to those who "show equal concern for the future replacement of public forests [as they do for] current production." See page 190.

was reintroduced in 1971 with the first of two white papers on the state of the forest industry.⁶⁶⁵ The second volume, published in 1972, provided the basic framework for operationalizing the set of proposed changes.⁶⁶⁶ In essence, the problem remained the same: compared with forest operators elsewhere in Canada and the U.S, Québec's forest industry supposedly faced higher than average costs, which were themselves attributable to the inefficiencies of the concessionary system.⁶⁶⁷ Using the abundantly stocked forests of British Columbia and the productive pineries of Southern United-States as the barometer for measuring the performance of forest operations in Québec, the report concluded that in terms of harvesting, preparation, and transportation costs, Québec's forest industry was disadvantaged on every front. Yet, given that the yardstick for measuring the performance of Québec's industry was so utterly different from the exigencies of operating in the sparsely timbered boreal forest, results of the inquiry were anything but surprising.

But what makes the government's report even more interesting is the fact that it simply reiterated the industry's own analysis of the situation with no explicit effort to test the industry's assertions on a more level playing field.⁶⁶⁸ Among the many other grievances of the pulp and paper sector, concerns were also raised regarding: 1) the uncompetitive labour and social welfare costs of operating in Québec (i.e., workmen's compensation, medicare, the Québec Pension Plan, minimum wage requirements, etc.); 2) above average taxes, levies, and stumpage dues; 3) the less productive and more extensive nature of the boreal forest and the need to travel ever further to extract ever smaller trees; and 4) the industry's inability to invest in more efficient technologies due to higher operating costs.

The sawn lumber industry on the other hand, faced a structural imbalance that was attributed to the excessive number of small mills and the resulting loss of efficiency, which

⁶⁶⁵ MTFQ (1971). *Exposé sur la politique forestière, Tome I: prospective et problématique*, Québec.

⁶⁶⁶ MTFQ (1972). *Exposé sur la politique forestière. Tome II: réforme et programme d'action*, Québec.

⁶⁶⁷ Exposé, Tome I, pp. 254-256.

⁶⁶⁸ *The Competitive Position of the Québec Pulp and Paper Industry* (1972, pp. 5-19). The industry's line of argument focused on the fact that it had to expend a higher level of effort per unit of extracted wood than competitors on the West Coast or in Southern United States. In other words, no explicit effort was made to investigate the industry's claims.

could only be amended by fewer and larger operators.⁶⁶⁹ But more importantly, the wellbeing of this important contributor to regional employment was hampered by its limited access to available resources – a problem that was directly attributable to the pulp and paper industry's virtual monopoly over concessionary land hold in the province. In short, Québec's forest sector was ill-organized to take advantage of the projected world demand for forest products and changes had to be introduced to amend structural inefficiencies, correct the incomplete use of available timber, and reduce the high costs of resource extraction.

The forest sector – as government understood it – was not hampered by the threat of overcapacity, overproduction, and overexploitation, for the aggregate consumption of wood was believed to be well below the annual allowable cut. The problem lay in the underlying set of conditions that rendered available timber stocks unproductive of revenue and employment. In order to improve the industry's competitive advantage and strengthen its capacity to further socio-economic wellbeing (i.e., generate employment), costs needed to be reduced to a bare minimum,⁶⁷⁰ and forest management decisions had to be placed in the hands of a central governing authority to increase allocative efficiency and optimise the use of available resources.⁶⁷¹ To achieve such ends, the concessionary system had to be abandoned and replaced with resource-specific supply contracts (i.e., guarantees of 20 to 40 years),⁶⁷² tailored to the needs of each user group. Efficiency gains would be achieved by handing over forest operations (i.e., logging) to the sawn lumber industry, which would in turn supply the resource needs of pulp and paper manufacturers through waste recycling (i.e., the transfer of

⁶⁶⁹ The number of sawmills in operation fell consistently from over 2000 in 1940 to 1125 in 1961, and less than 600 by 1968. However, productive output kept increasing, such that the number of mills producing 0.1 to 5 million ft.b.m. per year went from 1125 in 1961 to 507 in 1968; those producing 5 to 10 million ft.b.m. per year went from 32 to 40; 10 to 25 million ft.b.m., from 26 to 48; and those producing over 25 million ft.b.m., rose from 1 to 17. Based on these and other observations, the Ministry advised that the viability threshold for sawmilling operations was 7 to 10 million ft.b.m. See *Exposé, Tome I*, p. 258.

⁶⁷⁰ *Exposé, Tome I*, p. 216: "la meilleure contribution que le Ministère des Terres et Forêts peut apporter pour participer au redressement de l'industrie forestière est d'aider à réduire le coût de la matière ligneuse." The Bélanger Commission had made similar recommendations. Instead of placing additional tax burdens on industry, government ought to get the "maximum use from our natural resources and ensuring that more of Québec's raw materials are processed locally...[thus] creat[ing] new employment by favouring economic activity which is a source of tax revenue" (pp. 204-205).

⁶⁷¹ *Exposé, Tome I*, p. 27: "Optimiser l'utilisation de la ressource forestière en vue du développement économique et social du Québec." See also *Exposé, Tome I*, p. 280; *Exposé, Tome II*, p. 191.

⁶⁷² *Exposé, Tome II*, p. 135. Between 1963 and 1971, domainial forest reserves were increased from less than 2,000 miles² to over 88,000 miles²; concessionary land hold remained stable at around 87,000 miles²; 3,400 miles² were dedicated to conservation purposes or remained locked in municipal or township reserves; and 90,000 miles² were listed as vacant lands.

wood chips and sawdust residue).⁶⁷³ As long as operators remained in business, their supplies would be guaranteed.

In the public domain, forest productivity would be assured through the government's handling of all maintenance-related activities, including management, silvicultural treatments, and reforestation. Similarly, long-term productivity in private forests was to be harnessed via tax incentives, subsidies, and professional assistance.⁶⁷⁴ In other words, since all citizens benefited either directly or indirectly from the exploitation of public forests (i.e., jobs, economic growth, and a positive trade balance), then the cost of maintaining viable resource systems needed to be assumed by the public at large, rather than by those who profited directly from forest exploitation (i.e., the lumber and pulp and paper producers).⁶⁷⁵ With this change of emphasis, government would no longer assume a passive role in the administration of the public domain. Tax dollars were to be used to bolster private sector development, pay for past failures by improving the productivity of systems that were overly exploited, and provide assurances that minimized private risks. To support this expanded role, efficiency would be assured through administrative decentralization⁶⁷⁶ that would at once help rationalize public interventions, and improve coordination across demand and supply.⁶⁷⁷ Lastly, given the "arbitrariness" of previously used payoff rules (i.e., ground rents and stumpage dues), the cost of extracting resources from public lands would now be determined by a broader range of factors, including the quality and quantity of wood extracted, the distance between cut-blocks and factories, variations in commodity prices, and changes in the underlying socio-economic context.⁶⁷⁸

With these changes in place, the Ministry gained complete discretionary authority over the cost of operating on public lands. Since prices were subject to such a broad range of variables, it became nearly impossible to determine if the public's interest was indeed being considered. As for the costs generated by the spatial heterogeneity of northern resource

⁶⁷³ *Exposé, Tome II*, p. 190.

⁶⁷⁴ *Exposée, Tome II*, pp. 110-111.

⁶⁷⁵ *Ibid.*, pp. 66-67: "*la charge qu'elle occasionne devrait être répartie à toute la population et non aux seuls utilisateurs*".

⁶⁷⁶ Regionalisation of management activities through nine different administrative regions covering 44 management units.

⁶⁷⁷ *Exposée, Tome II*, pp. 7 and 189-190.

⁶⁷⁸ *Ibid.*, pp. 68 and 158-159. While the old system may have been arbitrary in terms of establishing the fixed rates used in the fee schedule, the new system was open to even more abuse. It essentially gave participants the freedom to negotiate terms and conditions on a case by case, thus opening the door to arbitrariness & discretion in the application of payoff rules.

systems (i.e., rent dissipation), these would largely be offset by an ongoing rationalization process (i.e., consolidation and vertical integration of forest operators) that would help bring about economies of scale and the concentration of resource rents (in the hands of a diminishing number of ever larger operators).⁶⁷⁹

8.2.2 Industrial Opposition

The plan to cancel timber concessions and manage public forests through a system of supply guarantees was finally given legal weight nearly two years later through Bill 28 (adopted in December 1974). However, in spite compensatory measures that were design to serve as an incentive to concessionaires who willingly forfeited their resource rights in favour of the state (sections 98), in exchange for supply guarantees (section 108), only a third of the concessions were retroceded by 1984.

Originally, the first and second volume of the 1971-72 white book were scheduled to be published simultaneously, but release of the proposed policy directives was delayed pending clarification of the interests of pulp and paper manufacturers. The fear was that Québec's intended course of action would disrupt the precarious situation in which operators found themselves,⁶⁸⁰ even though wood-pulp production (a limited value commodity) rose 45% between 1960 and 1970, and newsprint increased by 28%. The Council of Pulp and Paper Manufacturers of Québec argued that key competitors during this same period (in the United States and Scandinavia) had increased their production levels by margins of 62% to 82% during the same period. Such "*slow growth*," the Council contended, and "*the industry's competitive difficulties*" were further compounded by the fact that net profits in 1970 were actually 67% lower than in 1960. Two key factors were invoked to explain such results. First, "*overcapacity in the major producing regions of the world [had] depressing effects on price structure and the profitability of pulp and paper companies everywhere*." And second, the ability of manufacturers in Québec to remain competitive in a changing global market was severely hampered by the province's unfavourable "*cost/price relationships*", which imposed higher than average costs in a market of continuously diminishing returns. In addition to the issues already listed above (see section 8.2.1), the industry called on government to

⁶⁷⁹ *Ibid.*, pp. 160-161.

⁶⁸⁰ *The Competitive Position of the Québec Pulp and Paper Industry* (1972, p. 5).

substantially reduce its operational costs by all possible means, including drastic reductions in stumpage dues, the removal of ground rents, and the development of more subsidised forest access roads.⁶⁸¹ In concluding their demands, Council members reminded government that:

"Our recommendation admittedly call for changes in public expenditures. [But they] should be looked upon as a price required to obtain the much greater benefit of a healthier, more dynamic pulp and paper industry."

Based on the promises contained in the government's new policy directives, it appears as though the industry was largely successful in obtaining what it asked for. In fact, the reason why government initially postponed delivery of its intended policy and then delayed legislative action for another two years was all too clear for members of the opposition. Industry, and concession holders in particular, wanted nothing to do with the proposed revocation of their limits.⁶⁸² The executive might have supreme authority over the administration of public affairs in the province, but such a concentration of authority also renders it susceptible to the pressure of well-organized groups. In other words, prospective rent seekers need not affect the opinion of everyone in the National Assembly, they only need to make sure that their preoccupations are clearly understood by those at the very top of the system, and any other member of parliament who owes his or her seat to a forest-dependent constituency.

Given the province's historical and contemporary dependence upon the resource sector for regional employment and its positive trade balance, the ability of government to subtract itself from such pressure of those who willingly invested in the province was unlikely to say the least. The idea that "business needs inducements... if it is to do its job" (Lindblom, 1977, p. 175) arguably constituted the central theme of the 1972 white book and the propositions that have since been formulated by succeeding governments (see below). As illustrated in the memoirs of René Lévesque, the industry's power was formidable and its ability to affect government decisions unmistakable:

⁶⁸¹ *Ibid.*, pp. 6-7. The industry also demanded the removal of all taxes on fuel, equipment, and products used in the manufacture of pulp and paper products; reductions on energy costs; less rigid pollution abatement policies; and a moratorium on social programs such as workmen's compensation, medicare, minimum wage legislation, and obligatory contributions to the Québec pension plan.

⁶⁸² E.g., *Débats de l'Assemblée Nationale*, 14 mai, 1974, pp. B-1541-1544.

"Dès la création du Ministère des Richesses naturelles, au printemps de 1961, je me retrouvais en plein cœur de cette insignifiance collective, confronté à l'hégémonie des intérêts du dehors et de leurs valet indigènes. On avait ajouté aux ressources hydrauliques dont j'étais déjà responsable l'administration du secteur minier, mais j'eus beau plaider pour qu'on me confiât également les forêts..., rien n'y fit et je sus quelques temps après que les compagnies de pâtes et papiers avaient refusé net d'avoir à traiter avec l'inquiétant gauchiste que j'étais. Il faut dire que ces entreprises régnaient alors sans conteste sur d'immenses concessions forestières, soi-disant renouvelables mais en pratique perpétuelles, et que leurs souscriptions aux caisses électorales comptaient parmi les plus plantureuses" (Lévesque, 1986, p. 228).

8.2.3 Implementing the New Directives

In light of the new directives by which public forests were to be managed (i.e., 1972 policy directives), the role of the state corporation REXFOR (Société de récupération et d'exploitation forestière)⁶⁸³ was expanded to support more intensive forms of resource use, and thus contribute to economic development⁶⁸⁴ by stabilizing the flow of raw materials needed to maintain industrial activity, create employment opportunities, and favour a more complete use of available wood.⁶⁸⁵ Through REXFOR, public resources were leveraged to supplement industrial activity by "salvaging overmature" forests that were too costly for private operators to access and in danger of being "wasted" if not harvested. It was tasked with restoring previously degraded forests intended for industrial purposes by applying appropriate silvicultural treatments, and asked support the development of further industry to improve employment opportunities.⁶⁸⁶ Loans contracted by REXFOR in the pursuit of its activities were guaranteed by government and agreements with private operators could be entered into, as required and without legislative approval, to subsidize wood production and stabilize industrial development. Finally, in order to assist REXFOR in the pursuit of its obligations, the Ministry Finance could be called upon to advance any sum that might be required by the public corporation.⁶⁸⁷

⁶⁸³ REXFOR was formerly established under the name of "Office de Récupération des bois des rivières Outardes et Manicouagan" in 1961, to remove timber from the two river valleys that were to be flooded by hydro development projects. REXFOR was given a more comprehensive mandate in 1969 to further the economic development and performance of the forest sector. Over time, its role was continuously adopted to address emerging needs.

⁶⁸⁴ *Exposé, Tome II, p. 71: "...dans une perspective de développement économique...[pour] favoriser une utilisation plus intense des richesses forestières du territoire québécois afin que le secteur forestier contribue davantage à promouvoir le progress économique du Québec."*

⁶⁸⁵ *Exposé, Tome II, pp. 72-73.*

⁶⁸⁶ The Québec Wood Salvage, Logging and Forest Development Company Act, Chapt. 21, 1973, section 3.

⁶⁸⁷ Chapter 21 (1973), sections 17, 18, 19, 21, 22.

Until the 1980s, and eventual assistance in the development of Tembec, Donohue and Cascade, the extent to which REXFOR served the public's interest is anything but debatable.⁶⁸⁸ Between 1971 and 1974 for instance, it implemented "Operation 2000" to provide seasonal employment to welfare recipients, tasked with harvesting activities in the lower St. Lawrence and Gaspé regions. However, for a mere few thousand seasonal jobs (2156 jobs in 1971-72, 1852 in 1972-37, and 900 jobs for 1973-74), government spent \$21,242,676 and managed to recoup only \$9,938,249 from wood sales.⁶⁸⁹ In 1974-75, "Operation 2000" was revised to support reforestation efforts near existing facilities to improve productivity and support road construction to salvage "overmature" stands that were in danger of "wasting away." But again, high costs and poor results brought a quick end to this initiative as well.⁶⁹⁰ Over time, the mandate of the state-run enterprise was consistently refashioned to supplement private sector interests and keep questionable operations afloat, providing bailout packages and supply guarantees to milling operations that were at risk of closing due to diminishing stocks, reliance on less efficient technologies, or other comparable ailments.⁶⁹¹

In fulfilment of the government's commitment to support forest infrastructure development, the first of a series of federal-provincial agreements (\$138.3 million) was passed in 1974 to expand the network of forest roads (in order to reduce supply costs) and invest in reforestation activities and silvicultural treatments (e.g., thinning and improvement cutting).⁶⁹² While the terms of the Canada-Québec subsidiary agreements were modified over the years, the extent to which these and other comparable initiatives (e.g., REXFOR) ever produced appreciable results (in terms of improved forest resource use outcomes) is not supported by the succeeding forestry crises of the 1980s and 2000s.

By the end of the 1970s, the concerns raised in 1965 and 1971-72 were again being voiced with renewed vigour. Due to a variety of problems – the ever increasing costs of

⁶⁸⁸ REXFOR was instrumental in creating the profitable state-owned Donohue, which was eventually privatized in 1987, as part of a broader government agenda to sell most of its public corporations. See Bernier (1989) and Fournier (1990).

⁶⁸⁹ Côté, A. 1979. "Rexfor : un outil essentiel au développement forestier." in *La forêt au Québec*, Numéro spécial de la revue forestière française. Ministère de l'agriculture, Nancy, France. p 137.

⁶⁹⁰ *Ibid.*, pp. 137-38, 140.

⁶⁹¹ *Ibid.*, pp. 140-141; Annual reports of REXFOR (1973 to 1984); MER, *L'industrie du bois de sciage de résineux du Québec*, p.6.

⁶⁹² Canada. Ministère de l'expansion économique régionale, 1975. "Entente auxiliaire Canada-Québec sur l'accès aux ressources forestières 1974-78." Ministère de l'expansion économique régionale: Ottawa.

obtaining wood supplies, the permanent issues of high labour and transportation costs, inefficient or obsolete technologies, and chronic overcapacity in many regions of the province – the competitiveness of the pulp and paper sector (especially newsprint) was consistently falling behind its main rivals in Southern United States and Scandinavia.⁶⁹³ For its part, the sawn lumber industry suffered from too great a dependency on the American market and the vagaries of its domestic economy. On the supply side, sawn lumber producers faced a number of recurring problems of their own. The sector was hampered by strong regional variability in terms of available stocks. The province's generalized dearth of valuable hardwoods was left unresolved. And the large number of small mills, combined with high labour and supply costs pre-empted the industry's ability to develop economies of scale (i.e., larger and "more efficient" sawmills).⁶⁹⁴ Yet, between 1956 and 1966, and 1966 to 1976 respectively, the number of sawmills dropped by half at each period, while overall production doubled.⁶⁹⁵

Production trends in the pulp and paper sector followed similar growth patterns, such that by 1978, 30 million m³ of wood and 8 million m³ of saw dust and wood chips were being consumed in the Province,⁶⁹⁶ thus pushing available supplies to the brink of exhaustion in at least five of the nine administrative regions.⁶⁹⁷ Over time, the combined effects of overexploitation on private land and intensive resource extraction on the public domain invariably pushed the boundary of commercially exploitable forests ever further from the centers of production, making it increasingly costly to obtain supplies and remain in business. As a consequence, the minister delegated to forests Yves Bérubé explained, government could no longer act as a supplier of raw materials. In its new role as a catalyst of the forest, it now had to provide such supplies at the least cost possible:

"...l'absence de rationalisation de la production forestière [a] pour conséquence que le bois [se] fait toujours de plus en plus éloigné et de plus en plus cher..."

⁶⁹³ Nadeau, J.P., (1979) "Regard sur l'économie forestière," in *La forêt au Québec*, Numéro spécial de la revue forestière française. Nancy (France): Ministère de l'agriculture, pp. 31 and 33. A Parliamentary Commission was held in 1977 to investigate the future outlook of pulp and paper manufacturers. Among other things, it noted that the costs of making and delivering a ton of newsprint in Québec was at least \$52 higher than in Southern United States. See Nadeau p. 33.

⁶⁹⁴ *Ibid.*, pp. 35-36. "gg"

⁶⁹⁵ *Ibid.*, p.36.

⁶⁹⁶ Ouellet, E. (1979) "L'Allocation du bois", in *La forêt au Québec*, Numéro spécial de la revue forestière française. Nancy (France): Ministère de l'agriculture, p. 60.

⁶⁹⁷ Nadeau, 1979, p. 37.

[Conséquemment], il ne suff[it] plus au ministère des Terres et Forêts de remplir ses fonctions de pourvoyeur de matière première, il [doit] désormais allouer ce bois au meilleur coût possible, afin de remplir efficacement son nouveau rôle de catalyseur de l'économie forestière."⁶⁹⁸

Relief eventually did come, after a 1977 Parliamentary Commission found that Québec's pulp and paper manufacturers were falling behind competition. Weak technological investments combined with increasing resource scarcity and economic uncertainty helped foster a separate Canada-Québec subsidiary agreement for the modernisation of the pulp and paper sector in 1978.⁶⁹⁹ The two part agreement focused on reducing appropriation costs⁷⁰⁰ and improving the production capacity of the pulp and paper sector through a \$350 million subsidy that was eventually matched by some \$3 billion in private capital (Malenfant, 1987, p. 142). In addition to the modernization of the pulp and paper sector, the initiative sought to stimulate newsprint production (i.e., furthering daily output by 800,000 tons) and prevent the closure of out-dated facilities.⁷⁰¹ The purpose of the industrial revitalization fund was essentially based on a "business" proposition, which aimed to maximize economic returns and ensure the development of a more "aggressive and competitive" industry.⁷⁰² How such an approach could ever increase the sustainability of an industry that already consumed more than what the system could produce was obviously not part of the criteria used to assess the situation or develop an alternative course of action.

A more modest initiative concerned a \$21 million investment in the sawn-lumber industry of the Lower St. Lawrence region that was designed to revitalize the local economy by allocating supply guarantees and adapting existing technologies to accommodate smaller diameter wood – a telling sign of the diminishing quality of available resource stocks.⁷⁰³ In anticipation of the positive results that planned reforestation efforts should create, and the

⁶⁹⁸ Bérubé, Y. (1979) "La foresterie Québécoise à l'ère industrielle." in *La forêt au Québec*, Numéro spécial de la revue forestière française. Nancy (France): Ministère de l'agriculture, pp. 44-45.

⁶⁹⁹ Canada (1978) *Entente auxiliaire Canada-Québec sur la modernisation de l'industrie des pâtes et papiers, 1979-1984*. Ottawa: Ministère de l'expansion économique régionale.

⁷⁰⁰ This component was largely funded through the 1979-84 Subsidiary agreement on forest development, a five year grant (\$184 million) to build forest roads, engage in reforestation activities and execute silvicultural treatments. See *Entente auxiliaire Canada-Québec sur la modernisation de l'industrie des pâtes et papiers* (1978).

⁷⁰¹ Bérubé, 1979, p. 47.

⁷⁰² *Ibid.* p. 45: «...mises à point sous l'impulsion d'un gouvernement du Québec désireux d'assumer le leadership du développement de ses ressources naturelles, en s'alliant avec un secteur privé susceptible de redevenir agressif et compétitif. L'approche est essentiellement « d'affaires », basée sur des critères de rentabilité économique, et les solutions retenues pour leur effet d'entraînement maximum sur l'ensemble du secteur forestier. »

⁷⁰³ *Ibid.* pp. 45-47.

shorter rotation cycle that small diameter wood provided for, the Minister confidently announced that the allowable cut in the region could be immediately raised from 2,330,000 m³ to 2,800,000 m³ without hindering future productivity.⁷⁰⁴ Overall, between 1977 and 1980, some \$44 million in subsidies and low-interest loans were handed over to the sawn lumber industry.⁷⁰⁵

In these, as in other sectors of the provincial resource economy, the government's intentions were clear. In a tone reminiscent of 1920s, Minister Bérubé contended that the barriers between public administrators and industry were no longer. The provincial government was interested in establishing business relationships that would ultimately maximise the use of all crown resource assets:

*"Sur des dossiers-charnières comme ceux-ci commence à s'articuler une véritable industrie des ressources, reliée à cette colonne vertébrale que représente la volonté politique très claire du Gouvernement du Québec de maximiser, au profit des québécois, la mise en valeur du prodigieux potentiel forestier, minier, et énergétique du Québec."*⁷⁰⁶

Ultimately, efforts to increase access to the public domain had a resounding effect on wood consumption. By providing direct financial assistance, long-term supply guarantees to sawmills (which could also be used to secure loans to expand operations), and reduced stumpage dues to make the industry more competitive, wood consumption (private and public sources combined) increased by 45% between 1970 and 1980, rising from 23.6 million m³ to 34.2 million m³.⁷⁰⁷ During this period, domanial reserves were likewise increased from 87 000 miles² or 227 000 km² to 463 000 km², which in tandem with the expansion of forest access roads rendered underutilized portions of the public domain economically productive. As the then deputy minister of Lands and Forests, Jean-Claude Mercier, explained, improved resource access ultimately stimulated competition, and competition contributed to

⁷⁰⁴ As reported in Malenfant (1987, pp. 141-143), the government of Québec also established (or rather salvaged) poorly performing mills by creating state-sponsored corporations such as Donohue, with funding partnerships from American and Canadian sources. It acquired large shares of Domtar to maintain the value of the firm, and made additional investments in the pulp and paper sector (e.g., Consolidated Bathurst, International Paper Co., Noranda) and large sawmill corporations (e.g., Forex and Produits forestiers Saucier) to sustain their operations.

⁷⁰⁵ Gouvernement du Québec, (1985). *L'industrie du bois de sciage au Québec: analyse et perspectives*. Québec: Ministère de l'Industrie, du Commerce, et du Tourisme, p. 141.

⁷⁰⁶ Bérubé, 1979, p. 48.

⁷⁰⁷ Gouvernement du Québec (1984). *La politique forestière du Québec : Problématique d'ensemble*, Québec: Ministère de l'Énergie et des Ressources pp. 7-8.

technological investments and improved productivity (i.e., processing efficiency). However, in order to minimize job losses, production levels had to be increased, which in turn meant having to push the boundary of commercially viable forests ever further away:

*"...avec un plus grand nombre d'unités de production, la compétition et la concurrence sont devenues des facteurs d'évolution technologique. Pour réduire ses coûts et demeurer compétitive, l'industrie a dû moderniser ses usines. Ce développement technologique a amené un accroissement rapide de la productivité et il a fallu, pour éviter une diminution du nombre d'emplois, associer à la modernisation des usines une augmentation de la production... créant des pressions supplémentaires sur la ressource... [C]es développements ont été rendus possibles en éloignant de plus en plus les limites de la forêt économiquement exploitable."*⁷⁰⁸

To support this frenzy of development, public managers relied on simplistic assumptions that largely discounted the effects of natural disturbances (fire and insects) and overestimated the benefits of reforestation efforts and silvicultural treatments. By the early 1980s however, more than 100 million m³ of timber had been decimated by a severe budworm epidemic that lasted nearly a decade. The millions of dollars invested in reforestation activities were not producing their desired effects (Vézina, 1985, p. 4)⁷⁰⁹ and natural regeneration was not occurring as anticipated.⁷¹⁰ Consequently, the hypothesized wood surplus (i.e., "possibility") that was strongly defended by succeeding administrators never materialized.⁷¹¹ In fact, at the onset of the 1980s, all available stocks were essentially assigned to various user groups, thus limiting the prospects of correcting allocative inefficiencies through further structural reforms or reallocation schemes.⁷¹² Moreover, the revocation of concessionary rights proved more difficult to achieve. As highlighted earlier, only 32% of the land held under concessionary title in 1972 had been transferred to the state in 1984 and the previously unused reserves of these concessions were by now being fully worked.⁷¹³

⁷⁰⁸ Mercier, J.-C. (1983) "Les impératifs de la sociale-foresterie", in *Pour sortir de la crise: la sociale-foresterie*. Textes des conférences présentées au 69^e congrès annuel de l'Ordre des ingénieurs forestiers du Québec, p. 53.

⁷⁰⁹ In his study of reforestation efforts Québec, Roberge (1986, p. 3) noted that although 65% of plants survived after 2 years, only 20% remained after 8 years and survival rates were unclear thereafter.

⁷¹⁰ Nadeau, 1979, p. 37. For an indepth discussion on the failure of reforestation efforts, see Malenfant, 1987.

⁷¹¹ *La politique forestière du Québec*, 1984, p. 10.

⁷¹² *Ibid.*

⁷¹³ *Ibid.*, pp.9-10.

As indicated in its annual report for 1980, the Ministry of Energy and Resources was spending more than twice (i.e., \$105 million) the annual revenues it collected from the forest sector (i.e., \$44.7 million). Afterwards, the returns from public forests were so meagre that the Ministry simply stopped reporting whatever revenues it generated, preferring instead to emphasise the public “investments” that were made to bolster productivity, secure regional employment or prevent mill closures. As for the industry itself, the dissipation of resource rents forced user groups to engage in an ongoing process of horizontal and vertical integration that continuously diminished the number of competing operators. Through mergers, acquisitions, and closures, the number operating mills was reduced by half between 1970 and 1980 (i.e., 381 establishments), with 63% of the combined production capacity concentrated in only 43 large industrial complexes.⁷¹⁴ Within the pulp and paper sector, consolidation efforts led to a progressive integration of sawmilling capacity to existing facilities (mostly through the purchase of existing operations), as the industry sought to control each working part of the forest sector, capture all potential gains, and minimise supply costs.⁷¹⁵ However, the downside of bigger and faster processing facilities is that in the event of a change in market demand, their ability to adjust or alter the flow of production is much more limited. In other words, sunk costs can seriously limit the scope of allowable action (Arthur, 1994).

8.2.4 Continuing the Thrust of Expansionism

After less than a decade of experimentation with public resource management, government efforts to assume responsibility for forest maintenance activities came to an abrupt end. As the threat of a new global economic recession began to affect the industry towards the end of the 1970s, the conversation again shifted from the promise of plenty to the threat of scarcity. Only this time, the provincial economy was in the red and the days of free spending were over. Margaret Thatcher and Ronald Reagan were now at the helm of the most powerful western democracies and the Keynesian era of state interventionism was brushed aside by a new ideological stance grounded in the Hayekian worldview of spontaneous order

⁷¹⁴ Gouvernement du Québec, (1984). *L'industrie du bois de sciage résineux du Québec, problématique et éléments de solution*, Direction de l'industrie du bois d'oeuvre, Ministère de l'Énergie et Res ressources, p. 6; Gouvernement du Québec, (1985). *L'industrie du bois de sciage au Québec: analyse et perspectives*, Ministère de l'Industrie, du Commerce, et du Tourisme, p. 10. For a more thorough discussion of these factors, see Malenfant (1987).

⁷¹⁵ Nadeau, 1979, p. 37.

and free market adulation. As privatization, deregulation, and government downsizing became the operative words of a new world order, the theorized ability of the private sector to exercise self-restraint and use resources more efficiently suddenly regained the favour of Québec's political establishment. In short, tough economic times called for responsible government interventions. And like the rest of society, the government of Québec also had to tighten its belt, make cuts in its civil service payroll, and dispense with non-essential services, including failed experiments such as the appropriation of public forest management responsibilities.⁷¹⁶

As the combined effects of overcapitalization, overconsumption, ineffectual provisioning efforts and the falling returns of weak market conditions began to take their toll, the forest sector found itself in yet another crisis. The fundamental problem was again tied to the limited availability of resource supplies, which industry desperately needed in order to grow, let alone maintain existing facilities.⁷¹⁷ While the productive capacity (i.e., "possibility") of the provincial forest was estimated to be around 18 million cubic meters during the 1980s,⁷¹⁸ the average annual cut was nearer to 20 million cubic meters, thus prompting both government⁷¹⁹ and leading experts of the day to suggest that overall production levels effectively outpaced the regenerative threshold of the province's forests.⁷²⁰ Confounding the problem of overexploitation even further was the recognition that heavy machinery and year-round cutting (introduced during the 1970s) effectively induced operators to increase their productive output (so as to recoup sunk costs), thus generating more intensive patterns of resource use,⁷²¹ and an increased incidence of soil compaction, which delayed or impeded forest regeneration efforts.⁷²² Hence, if the productivity of the forest sector was ever to recover and indeed improve in a context of increasing administrative

⁷¹⁶ Landry, B. (1983). "Le secteur forestier: virage technologique et commerce extérieur." In *Pour sortir de la crise: la sociale-foresterie*. Textes des conférences présentées au 69e congrès annuel de l'Ordre des ingénieurs forestiers du Québec, pp. 68-70.

⁷¹⁷ MER 1984. "La politique forestière du Québec. Problématique d'ensemble" p. 123: "*Le problème majeur du Québec réside essentiellement dans la disponibilité de la matière ligneuse nécessaire non seulement pour assurer le développement de l'industrie forestière... mais pour assurer le simple maintien des usines existantes*"

⁷¹⁸ MER, 1985. *Bâtir une forêt pour l'avenir: La politique forestière*, Québec, p.44.

⁷¹⁹ *Bâtir une forêt pour l'avenir*, p. 85.

⁷²⁰ As Vézina (1985, p. 3) put it: "*Le déboisement va plus vite que le reboisement... La plupart des peuplements accessibles d'arbres de bonne qualité, parvenus à maturité, ont été abattus; il ne reste plus, dans bien des cas, que des boisés contenant des arbres dépérissant ou défectueux. Nous commençons à entrevoir l'épuisement des forêts naturelles exploitables*".

⁷²¹ Débats de l'Assemblée nationale, 25 novembre, 1985, p. 4233.

⁷²² See Vézina, 1985, p.4; *Bâtir une forêt pour l'avenir*, 1985, p. 83.

austerity, then substantial changes would have to be introduced relative the way resources were allocated and maintained.⁷²³

To solve this dilemma, experts and government turned to what they knew best: favour the development of the forest industry by optimizing the use of provincial forests.⁷²⁴ And in this context, optimizing forest use meant increasing the annual allowable cut without appearing to hinder the hypothesized volume of standing timber over time. Achieving such ends required a two-prong approach. First, in order to generate an immediate increase in the overall volume of standing timber, the frontier of commercially viable forests was simply extended northwards past the 50th parallel, (see Bouthillier, 2001, p. 262; and Malenfant, 1987), thus producing a “surplus” that could readily be used to stimulate near-term economic activity in the south where operations were mostly concentrated. And second, to secure the long term needs of the forest sector, government proposed to intensify reforestation efforts in the south by planting some 300 million trees annually, and to stimulate the productivity of private forests through favourable economic incentives and ongoing technical assistance. By banking on the projected growth gains of new silvicultural investments, authorities posited that the maximum sustainable yield or “possibility” of Québec’s forests could again be increased to reflect the discounted future benefits of provisioning efforts, even though past investments of this nature had proven to be generally unsuccessful. However, this time around, forest maintenance activities were to be handed over to the industry itself (see below), and tied to long-term management contracts that were somehow considered a sufficient guarantee that more efficient and effective provisioning efforts would ultimately be achieved. With these modifications, deputy minister Gilbert Paillé explained in 1986, the anticipated gains of reforestation efforts meant that the annual allowable cut could be raised immediately from 18 to 25.4 millions m³ or even to 30 millions m³ if the stocks lying in the extended northern frontier were taken into consideration.⁷²⁵ The problem of how to overcome

⁷²³ Ministre des forêts, Albert Côté, Débats de l’Assemblée nationale, 25 novembre, 1985, p. 4233.: “l’importance économique de la ressource, son impact sur l’emploi dans les régions et l’état lamentable de nos forêts justifient pleinement la nature urgente et radicale de l’intervention gouvernementale dans ce secteur vital de l’économie du Québec.”

⁷²⁴ Ministère de l’énergie et des ressources (1984). *La politique forestière du Québec. Problématique d’ensemble*, p. 121: “favoriser le développement de l’industrie forestière par une mise en valeur optimale de la forêt québécoise.”

⁷²⁵ See extract from presentation by Deputy minister Paillé during the 1986 “Congrès annuel de l’Association des manufacturiers de bois de sciages du Québec,” cited in Malenfant (1987, pp. 157 & 163-164).

diminishing stocks while increasing the productivity of Québec's forest industry was essentially solved.⁷²⁶

Following nearly six months of discussion in parliamentary commission,⁷²⁷ the Forest Act (Bill 150, c. 108) was unanimously adopted in December 1986 with only a few minor changes to appease concerns raised during consultations. While some argued that the initial draft of the proposed legislative reforms gave excessive reserve powers of the Minister; did not recognize regional exigencies and the need for a more adaptive legal framework; and placed most of the responsibility for reforestation efforts on the shoulders of the sawn lumber industry and private forest owners (even though pulp and paper manufacturers consumed the lion's share of Québec's production), the adopted legislation stayed remarkably close to the original bill.⁷²⁸

Henceforth, all remaining forest concessions were cancelled and resource rights were to be allocated through renewable Timber Supply and Forest Management Contracts that remained were valid for a maximum of 25 years.⁷²⁹ Contract holders were entitled to a specified annual volume of wood, on the condition that related obligations were fulfilled, including the reforestation of cutover areas and the application of planned silvicultural treatments to maintain or improve the annual yield in the managed areas (sect. 42). The annual allowable cut that contract holders were allowed to make was defined as the maximum volume of timber that may be harvested annually and in perpetuity from a forest (sect. 45 & 46), and in order to ensure that such targets would be met, contract holders were obligated to adopt a three tier management process involving the development of a general plan (25 years), as well as tactical (5 years) and annual workplans (sect. 51, 52, & 57).

Throughout, the Minister reserved the right to revise the residual volume of round timber that may be harvested from the public domain in fulfilment of a supply guarantee or to address emerging needs (sect. 43, 68, 76, 77, 80). In short, the law gave the Minister

⁷²⁶ For a critique of this system, see the report of the Coulombe Commission (2004, p. 151).

⁷²⁷ Journal des débats, 1986, pp. CET-557-1071.

⁷²⁸ The original policy statement for the 1986 reforms was presented in the 1985 white paper titled *Bâtir une forêt pour l'avenir. La politique forestière*, prepared by the Ministère de l'énergie et des ressources. Issues raised during the Parliamentary commission are available in Journal des débats, 1986, pp. CET-557-1071. For a brief discussion on these issues, see Boucher (1991, pp. 76-78).

⁷²⁹ Better known under the French acronym CAAF – Contrat d'approvisionnement et d'aménagement forestier.

explicitly powers to alter and even increase the flow of supplies, should economic circumstances suggest the need to do so.⁷³⁰ Additional supplies could either be granted directly from an allocated management unit, or could be secured through forest reserves that were not subject to any supply agreement and could thus be sold via public sales or through special agreements to provide auxiliary or guaranteed supplies to owners of wood processing plants (sect. 98 to 101). Such flexibility, Minister Côté explained, was essentially a reciprocal entitlement, which contract holders received for investing some \$5 billion between 1979 and 1986 to improve the efficiency of their operations and thus maintain the industry's competitive advantage. It was only fitting that such investments should be met with appreciable long-term guarantees:

*"Des investissements d'une telle ampleur ne peuvent s'envisager à nouveau dans un contexte d'insécurité... Il devient donc urgent de mettre en place un régime de gestion forestière qui garantisse des approvisionnements de bois sur une longue période afin de rentabiliser à long terme les investissements consentis et à consentir par l'industrie. C'est ce que propose le nouveau régime forestier."*⁷³¹

For in the end, what mattered was the industry's capacity to generate or maintain economic returns, especially in resource dependent regions. Government, minister Côté emphasized, had a duty to correct unfavourable economic situations and stimulate growth wherever possible. Valued ends such as regional development, the maintenance of existing employment conditions, and job creation via the transfer of silvicultural responsibilities (i.e., forest maintenance activities) were to be prioritized.⁷³²

As for stumpage dues, these were made payable in cash or in kind through the performance of silvicultural treatments (sect. 89). Following the precedent set forth in the 1972 white book (see *Exposé, Tome II*), timber dues and the means used to determine such values were the subject of such far-reaching conditionalities that in all practical sense, the minister (or appointed subordinate) retained near complete discretionary authority over their application. In the opinion of Minister Côté, dues necessarily had to reflect the market value of standing timber, fluctuations in market conditions (i.e., variations in supply and demand),

⁷³⁰ Débats de l'Assemblée nationale, 23 novembre, 1986, p. 4237: "le présent projet de loi confère de façon explicite le pouvoir au ministre d'octroyer un permis d'intervention à un utilisateur qui ne reçoit pas tout l'approvisionnement dont il a besoin."

⁷³¹ *Ibid.*, p. 4235.

⁷³² *Ibid.*, p. 4239.

appropriation costs (including the costs of accessing and harvesting timber), the location of targeted supplies relative to processing facilities, the costs of fulfilling management obligations, and the actual quality of the timber harvested.⁷³³ Consequently, even though the revenues generated through the complex system of public dues increased over time (Coulombe, 2004, pp. 20-22), actual gross earnings consistently diminished, such that by 2003-2004, public expenditures were 25 to 45% higher than the revenues collected (*Ibid.*, pp. 285-286).

8.3 Conclusion

Over time, several amendments were introduced to eliminate the use of chemical pesticides and maintain biological diversity (1994)⁷³⁴; reflect the growing importance of sustainable forest management in the preamble to the Forest Act (1996); and better integrate local socio-economic and environmental concerns in the management of public forests (2000). However, as the Commission for the Study of Public Forest Management in Québec (2004)⁷³⁵ eventually revealed, such minor changes could do little to steer the management of public lands towards more sustainable outcomes.

After nearly two centuries of consistent overexploitation, absent or inadequate provisioning efforts, and endless expansion of the territory assigned to commercial exploitation, so much inertia had been built into the system that failure of the 1986 reforms was almost predictable. In essence, the legislation failed because the underlying structure of the situation that affected the incentives that politicians, forest user groups, and forest dependent communities have faced over time has never been seriously questioned. By leaving the growth imperative unchallenged, the basic thrust of the 1986 reforms was grounded on the questionable assumption that forest appropriation rates could increase continuously, as long as yet unproven forest maintenance activities were performed. In this sense, the 2004 Commission and the crisis that followed were but the inevitable results of a fundamentally skewed system grounded in the illusion of plenty, the use of inherently flawed models and assumptions, and the belief that growth (i.e., ever increasing levels of production)

⁷³³ *Ibid.*

⁷³⁴ *La Stratégie de protection des forêts*

⁷³⁵ Commission d'étude sur la gestion de la forêt publique québécoise, 2004. *Rapport final de la Commission d'étude sur la gestion de la forêt publique québécoise*, présidé par Guy Coulombe. Québec.

could somehow be sustained indefinitely. While the 1986 legislative reforms were past unanimously and with a great deal of fanfare by members of the National Assembly,⁷³⁶ they did not live up to expectations. Overexploitation was pursued unremittingly. The proposed reforestation strategy did not work, with much of it being poorly executed or maintained, and subject to natural disturbances (fire or insects) that limited recovery efforts. Monitoring of biophysical conditions, as well as resource appropriation and maintenance activities, were either weak or absent. And the annual allowable cut was based on faulty assumptions that were both in excess of what the system could actually provide, and inadequately linked to local/regional variances in biophysical conditions and silvicultural treatments (Coulombe, 2004).

In considering the evidence presented in this and subsequent chapters, it appears reasonable to assume that the underlying logic of the situation in at the end of the 20th century differed little of at all from the conditions that prevailed at the onset of the century. As evolutionary theorists remind us, evolution is myopic (Hodgson and Knudsen, 2006, 2010). While institutional change may yield optimizing results over time, if directed in a direction that supports the fitness of social-ecological interactions, Otherwise, it can also be (and often is) a dead end – momentarily giving some a competitive advantage but ultimately doomed to fail nevertheless. In considering the ideas, values and beliefs that guided collective-choices and allocative decisions between 1960 and 1986, and the long streak of historical failures associated with such propositions, it was but a question of time before luck ran out and a fundamental reconsideration of the system's underlying assumptions occurred (i.e., crisis).

⁷³⁶ Débats de l'Assemblée nationale, 18-19 décembre, 1986, p. 5803-5860.

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CHAPTER IX: CONCLUSION

“What is needed are governments that are strong enough to be pluralistic, and listen to the concerns of the people” (Deforesting the Earth, Michael Williams, 2003)

9.1 Introduction

When resource use is considered over prolonged periods of time – the *longue durée*, as Fernand Braudel would put it – the importance of context-specific issues tend to wither away and the explanatory strength of hypothesized variables, in particularized choice settings, lose their potency. What remains are the discernable patterns of reiterated problem-solving events, the solutions that emerge, and the long-run consequences that these produced. By viewing institutional change as a human-adaptive response to the problems encountered within the iterative dynamics of social-ecological interactions, then the critical issue for understanding the path of social evolutionary change lies in understanding the process by which institutional variations are selected, replicated, and thus reinforced over time. As Lewis and Steinmo (2012) point out, who makes such decisions and what values, ideas, beliefs, and preferences informs their decisions can have dramatic long term effects on the evolution of a given system.

In closing this analytical inquiry, spanning nearly two centuries of human-environment interactions related to the use of forest resources in Québec, we turn our attention to the underlying question of this thesis and suggest a tentative hypothesis for explaining how forest governance institutions in the province evolved and why. Given that each of the preceding chapters is supported by a detailed conclusion, this section will be purposefully brief and aim to provide an overarching view of the cases considered in this thesis.

9.2 Considering the Evidence

Accepting the proposition that institutional change constitutes an adaptive response to alteration in the broader social-ecological environment leads us to the proposition that social,

political, and economic change is always self-selected and therefore endogenous to the system under consideration. If this proposition holds true for all social systems, then understanding how adaptive responses are selected and by whom becomes a critical necessity, not only for understanding the past, but more importantly, for identifying ways to improve outcomes in the future.

To be sure, humans actions are always imbedded in dense institutional ecologies – from the normative and socialized habits that inform the values, beliefs and preferences of individual actors (Hodgson, 2010; North, 2005), to the formal and informal rules that condition operational, collective, and constitutional choice situations (E. Ostrom, 2005). Who has access, therefore, to collective and constitutional-choice arenas and how decisions are made in these settings matters because such choices and decisions invariably reflect the values, beliefs and preferences of decision-makers (Katznelson and Weingast, 2005), and institutional decisions always have broad scale effects. In this sense, governments play a pivotal role in all societies by selecting the ideas, values, and interests that are to be promoted across social, political, and economic landscapes (Lewis and Steinmo, 2012). As such, they directly affect the present and future distribution of costs, determine the allocation of benefits, and influence the course of political-economic affairs, including the degree to which a state will tend towards sustainable human-environment interactions or not.

In examining the evidence considered in this thesis, the selected cases can be categorized by the nature of the related forest sector outputs, whether before industrialisation (i.e., prior to the development of the pulp and paper industry at the turn of the 20th century – see Table 9.1) or after (see Table 9.2). During the nineteenth century, and in particular, after the transfer of administrative oversight from England to Lower Canada (Québec) in 1826, institutional developments were essentially guided by two distinct considerations: the need to generate revenues and that of balancing the demands of settlement with the interests of lumberers.

The pre-industrial period is marked by a relatively strong willingness to adapt to the novel situations in which government found itself. Institutional changes were non-path dependent in the sense that there is no evidence that prior decisions created positive

feedbacks that entrenched future opportunities in one way or another. By the same token however, they can only be explained by the fact that the right to make decisions regarding the use, allocation and management of public lands rested in the hands of the executive. The consequences of the government's overarching authority over the use and allocation of available resources was observed in a number of other ways. First, in spite of clear evidence that more sustainable options existed to either improve the social wellbeing of forest-dependent communities or reduce pressure on the largest and most valuable trees in the province (i.e., white and red pine), changes were never instituted (e.g., proper inventory of soil conditions suitable for agriculture; further the development of the sawn-lumber industry; bring an end to the wasteful practice of squaring). Second, the friction between the competing land use claims of settlers and lumbering interests was known, as were the remedies, and yet, nothing was ever done to correct the near constant confrontations between the two. Depending on the respective beliefs or persuasions of the government in power, succeeding cabinets tended to favour one or the other, resulting in dysfunctional policies (e.g., colonization roads into marginal lands; reluctance to limit the rights of settlers to appropriate land held under license to cut timber) – policies that were arguably making everyone worse off, though evidence suggest that lumberers profited handsomely from the incoherence of this institutional interplay. Third, in response to industry demands, government consistently maintained low stumpage dues and ground rents, which in turn undermined the value of Québec's wood on the British market and promoted volume-based exploitation where profits were derived from the bulk rather than the quality of the goods. And fourth, the need for investments in the maintenance of forest resources, including monitoring and enforcement efforts was clearly established during the 1860s and 1870s. Yet, the reluctance to diminish potential returns, combined with the appearance of plenty continually conspired against the government's willingness to support, either directly or indirectly, the provisioning costs of ongoing resource exploitation. Table 9.1 presents a summary of the factors that directly or indirectly affected outcomes in the Chapters IV to VI. Issues that were under the direct control of government are marked by an asterisk (*).

Table 9.1 Pre-Industrial Sources of Causation

| DIRECT / PROXIMAL FACTORS | INDIRECT / STRUCTURAL FACTORS |
|--|---|
| COMMERCIAL EXPLOITATION* <ul style="list-style-type: none"> • Square timbering • Lumber production | NATURE OF THE GOOD <ul style="list-style-type: none"> • Subtractable & non-excludable • Relative abundance of forests |
| SETTLEMENT / COLONIZATION * <ul style="list-style-type: none"> • Conversion • Fuelwood production • Private production | ECONOMIC CONDITIONS / FACTORS* <ul style="list-style-type: none"> • Encouragement of the staple trade • Preferential duties & undervaluation • Market demand for square timber & lumber • Agrarian economy & limited \$ sources • Sub-contracting (jobbing) |
| RULES* <ul style="list-style-type: none"> • Minimum production requirements • <i>Improvement</i> obligations | SOCIO-CULTURAL FACTORS <ul style="list-style-type: none"> • Rural population increase / colonization • Seasonal / non-dedicated workforce |
| GEOGRAPHY / INFRASTRUCTURE <ul style="list-style-type: none"> • Rivers, • Canals, slides* • Colonization roads* • Railways* | POLITICAL / INSTITUTIONAL FACTORS* <ul style="list-style-type: none"> • Fiscal (revenue) / social (settlement) policies • Discretionary oversight / manipulation • Weak enforcement / insecure titles • Unstable governments • Ground rent system & cull measurements |

With the advent of the pulp and paper industry, the more or less passive role that government played during the 19th century came to an abrupt end. Owing to the more demanding nature of the pulp and paper industry, both in terms of up-front costs and long term supply and energy needs, government became the primary instigator, supporter and ally of the industry. The shift towards pulp and paper sector had a decisive influence on the government's stance towards colonization and once engaged along this institutional path, investment costs were such that changes in policy directives became progressively inconceivable. Sunk costs, regional employment and development, the maintenance of a positive trade balance, and the need to guarantee long term and low cost supplies all conspired against change. So much so that the government consistently diminished its requirements relative to its baseline appropriation rules, thus making it possible for the pulp and paper industry to supplement its resource needs with little or no limitations on the size harvestable timber, and without the need to support maintenance costs. Overtime, the province's socio-economic dependence on the pulp and paper industry gave corporations an increasing power leverage that made them either too large or too important to fail. In the process, industry was allowed to operate without ever having to assume the costs of the

externalities it produced. While the 1986 reforms meant that industry had to assume responsibilities for maintenance cost, the full subsidization of these requirements meant that costs were still borne by the public, not the industry.

As in the previous century, options and solutions to improve the sustainability of the sector were known and discussed but never pursued. Instead of advocating for limitations on the productive output of the sector, and investments in sustainable resource management closer to existing operations, all succeeding governments willfully supported the expansionist tendencies of the industry, and maintained an unreserved belief in the reliability of annual allowable cut estimates, even though such numbers had so far proven to be flawed and unreliable. Table 9.2 presents the key variables that affected social-ecological outcomes during the 20th century, as identified in Chapters VII and VIII. As above, issues marked with an asterisk (*) were directly under the control or influence of government.

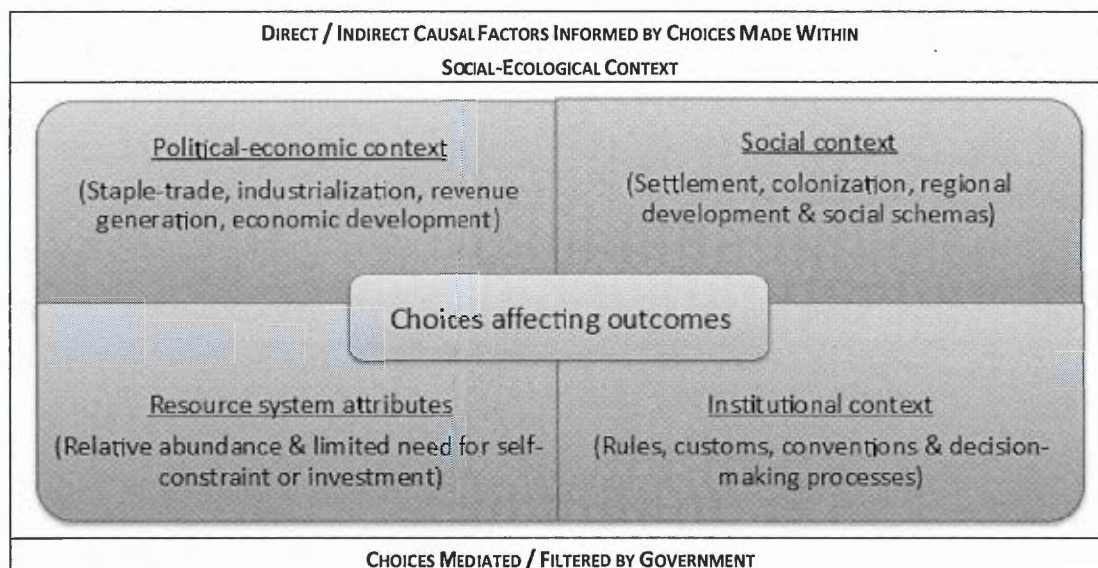
Table 9.2 Post-Industrial Sources of Causation

| DIRECT / PROXIMAL FACTORS | INDIRECT / STRUCTURAL FACTORS |
|--|---|
| <p>COMMERCIAL EXPLOITATION*</p> <ul style="list-style-type: none"> • Square timber/lumber production • Pulp & paper production • Industrial expansion / intensification <p>TECHNOLOGICAL FACTORS*</p> <ul style="list-style-type: none"> • Pulp manufacturing & mechanization <p>COLONIZATION*</p> <ul style="list-style-type: none"> • Land use conversion • Private production <p>RULES*</p> <ul style="list-style-type: none"> • Minimum production requirements • No provisioning obligation <p>GEOGRAPHY / INFRASTRUCTURE</p> <ul style="list-style-type: none"> • Rivers, canals & dams* • Railways & forest access roads* <p>BIOPHYSICAL FACTORS</p> <ul style="list-style-type: none"> • Fire / insect disturbances | <p>NATURE OF THE GOOD....</p> <ul style="list-style-type: none"> • Relative abundance – boreal forest • Belief in models* • Perceived <i>over-mature</i> imbalance* <p>ECONOMIC CONDITIONS / FACTORS*</p> <ul style="list-style-type: none"> • Market demand & growth imperative • High start-up + operating costs = incentive to reduce supply & maintenance costs • Efficiency seeking & externality producing <p>SOCIO-CULTURAL FACTORS*</p> <ul style="list-style-type: none"> • Regional employment & development <p>POLITICAL / INSTITUTIONAL FACTORS*</p> <ul style="list-style-type: none"> • Economic development policies • Discretionary oversight; manipulation; • Rent seeking; short-time horizons; subsidization • Weak / inadequate appropriation & provisioning rules |

9.3 Causal Analysis

The direct and indirect causal features presented in the preceding tables all highlight variables that affected the evolving social-ecological contexts within which forestry in Québec evolved. Overall, these findings are consistent with the existing literature (e.g., Ascher, 1999; Geist *et al.*, 2006; Repetto and Gillis, 1988; Williams, 2003). What these tables and the analytical narrative presented in this thesis point to however, is the underlying complexity of the causal relationships that affected the evolution of forest resource institutions over the past two centuries, making it difficult if not impossible to isolate the weight of any one variable. But when considered as a whole – especially in light of the causal process observations that were traced over the study period – available evidence compels us to consider the overwhelming role of government as a central moderator of social-ecological interactions, from the very beginnings of commercial forest exploitation until this very day. As shown in Figure 9.1 below, issues highlighted in the four quadrants (i.e., political-economic context, social context, institutional context, and resource system attributes) were all directly or indirectly affected by choices that successive governments pursued. Whether one considers support for industrialization, the development of colonization roads, the limited willingness to exercise self-restraint in the exploitation of available timber, or rules that forced operators to harvest specific volumes of wood, regardless of market conditions – all of these variables were conditioned by the decisions of government. In this sense, government (used here as a denominator and not in a monolith) affected overall social-ecological outcomes by filtering or mediating the public choices that conditioned the incentives resource users faced over time.

Figure 9.1 Underlying Causal Features



9.4 Hypothesis

Evidence suggests that the evolution of forest governance institutions in Québec was, *ceterus paribus*, primarily conditioned by and informed through the interests of succeeding governments. By setting the agenda for policy reforms; by affecting the allocation of public resources; by agreeing to long term supply guarantees; by engaging in ongoing institutional changes; by limiting its own capacity or willingness to enforce rules; by supporting the short term interests of large operators over the long term wellbeing of forest dependent communities; by using public moneys to pay off the debt and externalities produced by the private sector; by favouring economic growth over social-ecological viability; and by maintaining the executive's stronghold over public forest resource, to the detriment of greater regional autonomy and increased institutional diversification – government has played (and continues to play) a key role in selecting the policy ideas, values, and beliefs that were deemed valuable for the province and reinforced replication and further refinement of these ideals over time. The positive returns created by this entrenchment made it progressively more difficult for future governments to deviate from the established course of action, forcing a continuation and dependence towards the selected path.

Further, anecdotal evidence suggest that by the later half of the 20th century, the normative assumption that natural resource management is a government prerogative was in all likelihood appropriated by public administrators themselves. In other terms, executive privileges became institutionalized, and the central authority to govern led to centralized structures of public administration. As recent inquiries⁷³⁷ have shown, concentrated authority in the administration of public affairs can lead to complacency and laxness in the application of ministerial mandates. Though this thesis centered analytical inquiry on the relationship between government and the evolution of forest governance institutions, the ability of public servants to advise ministers, develop operational guidelines and regulatory measures, interpret and enforce rules, sanction forest management plans and oversee harvesting operations obviously provides tremendous leverage. Whether and how the authority of public servants to formulate, apply, and enforce rules iteratively affected the selection and replication or inheritance of normative and institutional assumptions in Québec's forest sector constitutes an area of research that warrants further investigation.

While the answer to how forest resource institutions evolved in Québec can be positively asserted, the reasons why are more problematic. If anything, evidence suggests that ignorance or malfeasance were never at play, though the longer a government stays in power, the more it is likely to take risks and blur the boundaries between private and public interests. On the surface, governments tended to favour policies that could satisfy the interests of the electorate (i.e., maintain or enhance voter confidence) and answer the demands of the political-economic elite. However, to understand the path of institutional dynamics, one needs to dig deeper and uncover the fundamental values, beliefs, and ideas that ultimately guide human action in purposeful situations (North, 2005). While acknowledging that human actors are able to exercise agency, such agency invariably occurs within social structures that create "systems of durable dispositions" (Bourdieu, 1977, p. 72; see also Sewell, 2005). Acquired through processes of cultural selection and replication, these dispositions or habits, (Hodgson, 2010) foreshadow what John Dewey refers to as "predispositions to ways or modes of response" in socialized situations (cited in Hodgson, 2010, p. 4), thus providing the enduring "solidarities" that "construct the world and give it its meaning" (Bourdieu, 2000, p.

⁷³⁷ Rapport du Vérificateur général, 2002. "Faits saillants, chapitre 4: Les Ressources forestières". In *Rapport à l'Assemblée nationale pour l'année 2001-2002, Tome II*. Québec; 2004 Commission for the Study of Public Forest Management.

142). When applied to the case study periods examined in this thesis, the suggestion here is that conventions such as the prerogative rights of the executive, the idea that land only acquires value if it's "improved" (i.e., converted to agricultural use) or that intensive forms of forest exploitation are acceptable, as long as socio-economic benefits outweigh social-environmental costs, and so on so forth – all such ideas rested on narratives of how the world works. As such, actors charged with the prerogatives of rulership, at various periods of history, made decisions within the boundaries of their legal authority that were (and always are) grounded in some recognizable mental model or narrative of what is to be valued, the ends to be achieved, and the acceptable means of achieving such ends. What this thesis makes clear however, is that the fundamental beliefs that guided government interventions during the better part of history tended to reflect a relatively narrow subset of ideals, which more often than not, were consistent with the interests of the political-economic elite, as opposed to the broader range of ideas and values that were being discussed at any specific point in time.

As such, if there is one reason that seems to provide a sustained rationale for the actions and decisions of government over the years, it is that of profit and ultimately, the belief that economic growth generates returns that outweigh other fundamental values, such as the maintenance of forest ecosystem services, the maintenance of old growth forests, the maintenance of a healthy environment and all the other necessary amenities of life, including the need for locally adapted communities grounded in locally adapted economies. In fact, the only viable reason that can reasonably explain the path of institutional change in Quebec's forest sector over the last century, and the motives or interests that lie at the heart of the chronic state of crises that began in the 1920s is the pursuit of growth. In a nutshell, evidence suggests that governments have played a pervasive role in structuring the evolution of forest governance institutions by affecting the normative values of institutional development; by determining whose interests are selected and replicated; and by systematically using natural resources as an unlimited bank account that can continuously be tapped into to achieve whatever political-economic ends are deemed necessary (e.g., local/regional development, maintain a positive trade balance, support special interests or provide inducements to industry, secure political gains, etc.). While there undoubtedly were initiatives that produced positive social-ecological outcomes, our review of history and the current predicament of the

forest sector suggest that these were insufficient to compensate the massive losses accrued throughout in the system.

9.5 Conclusion

The performance of forest governance institutions can no more be disassociated from the social, political and economic circumstances from whence they arise than can the growth of a forest be considered in isolation of its biophysical environment. Fortunately, nature is resilient and many of the mistakes highlighted in this thesis can be remediated, if, and only if, there is a sufficiently strong collective will to do so. The Sustainable Forest Development Act (Bill 57, L.Q., 2010, chapter 3) represents a major step in the right direction. Adoption of ecosystem-based principles to judge the performance of forest resource use on public lands, along with the regionalisation of management decisions are some of the more significant changes embodied in this legislative reform. However, history provides a strong cautionary note. For in spite of progress made, government remains the principle custodian of collective-choice rights and in the absence of more inclusive and deliberative decision-making processes, that can incorporate the full breadth of ideas, values and beliefs that form the basis of any resilient and adaptive social-ecological system, opportunities for shifting the direction of change towards more narrowly defined interests will remain strong.

To improve social-ecological outcomes in the use of public forests, the principles of adaptive resource management, which are part and parcel of ecosystem-based approaches must be met with adaptive resource governance institutions (Dietz *et al.*, 2003). Effectively, this means that policies must be treated as hypotheses to be tried, tested, and ameliorated (Chapin III *et al.*, 2010; Dewey, 1938; Lewis and Steinmo, 2012). In turn, adapting to the time and place exigencies of complex and varied social-ecological systems implies a need for locally adapted institutions and therefore, localised (i.e., decentralised) collective choice rights (E. Ostrom, 2010; V. Ostrom, [1999] 2012). Bill 57 only partially addresses this requirement. At the legislative level, proportional representation, as well as inclusive and authoritative deliberative mechanisms, such as those proposed by Gerring and Thacker (2008) would represent a significant, though longer term refinement of constitutional choice rules. And to this, there is the undeniable need to establish clear constitutional constraints on the actions and decisions of government. For as Buchanan (2002, p. 1) points out, "if ultimate

improvements in patterns of political outcomes are to be expected,” then constitutional choice rules “are [the] instruments through which reforms must be effected.”

Admittedly, the constitutional level of analysis remains an open field of study that has yet to attract the attention it deserves. But to develop effective institutional reforms that can begin to address the flaws of past evolutionary pathways, one must likewise develop a clear understanding of how a given social-ecological system evolved over time and why. If the world of today was forged by past agency-structure interactions and the consequent selection, retention and replication of current institutional traits, including the values, beliefs and cognitive schemas that give meaning to human agency, then fundamental change will require a deep appreciation of the past, and the nature of the institutional structures that affect our ability to choose, engage in collective action and support sustainable outcomes.

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